

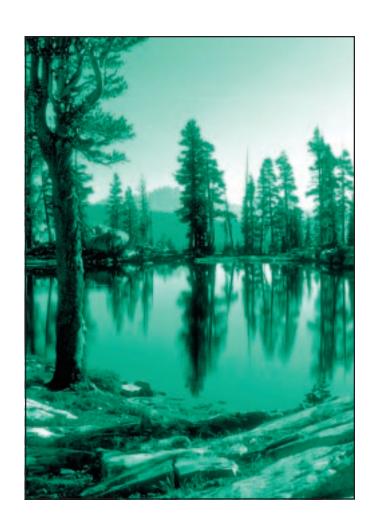
# ENVIRONMENT

volume 2 1997

# Special Edition on Hazardous Wastes

### **Covering:**

- Air
- Health Effects and Risk Assessment
- Pesticides and Toxins
- Regulations
- Soil
- Solid Waste
- Superfund
- Water, and More!



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## Environment Highlights

### Comprehensive Issue on Hazardous Waste Information

This issue of the *Environment Highlights* catalog points you to the most useful reports, studies, federal regulations, guidance, software, and data pertaining to environmental hazardous wastes. Key information products have been selected for this catalog to help industry comply with regulatory requirements and make use of the latest technology, programs, and research. Leading information sources include: the Environmental Protection Agency and the U.S. departments of Energy, Defense, Commerce, Interior, and Agriculture.

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### General

### ACCESS EPA (Rainbow Book) (for microcomputers)

Environmental Protection Agency August 1994

An electronic version of this valuable desk reference allows users to access key, publicly available information resources on important environmental topics. It provides detailed descriptions with complete contact information on EPA's clearinghouses, hotlines, databases, dockets, scientific models, libraries, records programs, plus state environmental libraries. In addition, it contains directions for obtaining information from State Environmental Libraries; Government Document Ordering Services; and Federal Depository Libraries. To enhance the usefulness of this product, there is also a selected acronym list and a detailed author/title/subject index.

### Specifications

The datafile is on one 3.5-inch DOS Diskette, 1.44M high density. This product contains text only. Customers must provide their own search and retrieval software. Files are compressed.

### Ordering Information

Order number PB95-500260CFF, \$35. Outside U.S., Canada, Mexico \$70

ACCESS EPA - Organizational Overview, Public Information Tools, Library and Information Services, Major EPA Dockets, Records Management Programs, Clearinghouses and Hotlines, Electronic Resources, Models. 1995/96 Edition.

Environmental Protection Agency, Washington, DC. Office of Information Resources Management.

1995 431p

ACCESS EPA is a comprehensive directory of the Environmental Protection Agency's (EPA) major information resources and services. It lists many information resources and services, such as clearinghouses, hotlines, databases, libraries, and dockets to name a few. Each entry

includes an abstract describing the resource, along with contact and ordering information. The appendix includes a list of acronyms, an index, and an evaluation form for your comments or suggestions. This edition has been revised to include only EPA information. In addition to several dozen new entries, the remaining 200 or so have been completely updated.

Paper copy only.

#### Ordering Information

Order number PB95-255782CFF, \$28. Outside U.S., Canada, Mexico \$56



Adaption of the Magnetometer Towed Array geophysical System to Meet Department of Energy

### Needs for Hazardous Waste Site Characterization.

Sandia National Labs., Albuquerque, NM.; Sponsored by Department of Energy, Washington, DC.

Oct 95 121p

This report documents U.S. Department of Energy-funded activities that have adapted the U.S. Navy's Surface Towed Ordnance Locator System to meet DOE needs for a '... better, faster, safer and cheaper ...' system for characterizing inactive hazardous waste sites.

### **Ordering Information**

Order number DE96004551CFF, \$28. Outside U.S., Canada, Mexico \$56

### California Base Closure: Lessons for DoDs Cleanup Program.

RAND Corp., Santa Monica, CA. 1995 106p

This report examines the policy innovations implemented to enhance the cleanup of closing military bases in California and considers their application to other aspects of DoD's cleanup program and the national discussion regarding hazardous waste policy.

### Ordering Information

Order number AD-A302 594/7CFF, \$28. Outside U.S., Canada, Mexico \$56





### Decision Tool to Optimally Select Pollution Prevention Projects within a Constrained Budget.

Air Force Inst. of Tech., Wright-Patterson AFB, OH. School of Engineering.

Dec 95 95p

The model was built using decision analysis theory which provides a framework to aid the decision maker. Decision analysis can be used to create a dominance curve that shows all optimal strategies based on the willingness of the decision maker to make trade-offs between attributes. This model provides analytical data that can be used to justify decisions made by the pollution prevention manager when selecting the optimal mix of pollution prevention projects for implementation.

### Ordering Information

Order number AD-A303 536/7CFF, \$25. Outside U.S., Canada, Mexico \$50

# Environmental Fate Data Base (ENVIROFATE) Complete: XREF, CASLST, DATALOG, BIOLOG, CHEMFATE, and BIODEG (on Magnetic Tape).

Environmental Protection Agency, Washington, DC. Office of Pollution, Prevention, and Toxics.

Nov 94 mag tape

The Environmental Fate Data is a data bank containing data or pointers to data on physical/chemical properties and environmental fate of several thousand chemicals. It was designed to provide an easily accessible source of information useful for describing the environmental behavior of chemicals. EFDB consists of 5 interrelated files. CASLST is a listing of CAS Registry Numbers, molecular formulae, and names for chemicals included in the other tapes (Except for XREF). They are linked by CAS Registry Number. DATALOG provides a pointer to various data reported in the open literature pertaining to environmental fate of chemicals. A reference number of up to six digits links this file to the XREF file to provide the full journal citation. BIOLOG provides a pointer to data on microbial degradation or toxicity reported in the open literature pertaining to particular chemicals. A reference number of up to six digits links this to the XREF file to provide

the full journal citation. CHEMFATE is a file containing actual literature-derived data pertinent to the environmental fate of several hundred chemicals, from a diverse group of chemical classes. Each record is a miniature paper, with a summary, results, and experimental conditions.

### Specifications

VMS 5.5 operating system. Utility program: VMS Copy Utility. Available in 9-track, ASCII character set tape, 1600 bpi, 6250 bpi, or 3480 cartridge.

### Ordering Information

Order number PB95-503074CFF, \$645. Outside U.S., Canada, Mexico \$1,290

### Environmental Monitoring Methods Index (EMMI), Version 2.0 (for Microcomputers)

Environmental Protection Agency, Washington, DC. Office of Science and Technology.

The EPA's Environmental Monitoring Methods Index software assists users in comparing and evaluating analytical methods applicable to environmental pollutants. EMMI combines rapid search capabilities with a user-friendly interface. Users can search on: chemical names, trade names, or synonyms; CAS registry number; apparatus; analytical method number; regulatory origin; custodial organization; short or full title of the method; and matrix, e.g. air, water, etc. EMMI Version 2.0 has tripled its size, containing more than 3,400 abstracts of analytical methods to include all EPA, NIOSH, and DOE methods and many from state government and universities. The database contains more than 4,000 substances from 47 regulatory and non-regulatory lists (e.g. SARA, CERCLA, SDWA, CAA, CWA, etc.). More information is available by fax by calling (703) 487-4140 and asking for product code: 8482.

### Specifications

The datafile is on six 3.5-inch DOS diskettes, 1.44M high density. Requires 17 MB hard disk space. Contains search and retrieval software.

### Ordering Information

Order number PB95-501748CFF, \$385. Outside U.S., Canada, Mexico \$485

Other ordering information: 2-5 concurrent users: \$995. Price outside U.S., Canada, and Mexico is \$1245 (order number PB95-502399CFF). Unlimited concurrent users: \$1995. Price outside U.S., Canada, and Mexico is \$2500 (order number PB95-502407CFF).

# Environmental Review Guide for Operations (ERGO). Supplement for the Environmental Assessment and Management (TEAM) Guide. Revision.

Construction Engineering Research Lab. (Army), Champaign, IL.

Sep 95 246p

In fiscal year 1994, the U. S. Army Corps of Engineers became a participant in the efforts to create a single compliance assessment manual for use by all members of the DOD. The resultant manual is The Environmental Assessment and Management Guide. In order to examine Engineer Regulations and Civil Works specific issues, the ERGO Supplement was developed to use in conjunction with the TEAM Guide.

### Ordering Information

Order number AD-A301 187/1CFF, \$41. Outside U.S., Canada, Mexico \$82

### **Environmentally Conscious Manufacturing.**

National Technical Information Service, Springfield, VA.

Dec 95 67p

This collection of five reports focuses on Environmentally Conscious Manufacturing practices, research analyzes, and legislative impact. The reports can also be purchased individually from NTIS.

### Ordering Information

Order number PB96-129093CFF, \$59. Outside U.S., Canada, Mexico \$118

### EPA Publications Bibliography, Quarterly Abstract.

Environmental Protection Agency, Washington, DC. Office of Administration. 4 issues

EPA Publications Bibliography is a quarterly bulletin containing abstracts, corporate source, subject, contract number and title indexes. The fourth issue of the year contains bibliographic citations with abstracts for the proceeding quarter and cumulative indexes for the calendar

### Ordering Information

Order number SUB-9042CFF, Subscription

U.S., Canada, and Mexico price \$145.00/ year; all others \$290.00. Single copies also available for \$36.25, request most recent issue.



with Lead Oxide under Simulated Hazardous Waste Incineration

### Conditions.

Oak Ridge National Lab., TN. 1996 16p

To simulate the behavior of lead during hazardous waste incineration, pellets of sintered lead oxide were treated with hydrogen chloride at concentrations of 2000 and 4000 ppm in air in a laboratory tube furnace. The chemical reaction kinetics and mass transfer properties of the solid-gas and solid-liquid reactions were examined at temperatures between 260 and 680 deg C.

Western States section meeting, Tempe, AZ (United States), 11-12 Mar 1996.

### Ordering Information

Order number DE96008664CFF, \$19.50. Outside U.S., Canada, Mexico \$39

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### EPA SOFTWARE MODELS — HELP EVALUATE AND CALCULATE COSTS

Four software models are now available providing users with the same tools EPA's enforcement personnel employ to evaluate the ability of a company to meet Superfund cleanup cost requirements. With figures gained from the application of these four models, a manager can prepare his business strategy regarding responsibilities at a Superfund site. The models are:



### **ABEL Model: Evaluates** Claims of Inability to Afford **Penalties and Compliance**

### Costs (Version 2.8) (for Microcomputers).

The easy-to-use ABEL software judges for-profit company claims of inability to afford Superfund cleanup costs.

### Specifications

System: DOS operating system. Requires 376K of hard drive space. The software is on one 1.44M, 3.5-inch disc. Documentation included; may be ordered separately as PB92-230366CFF.

### Ordering Information

Order number PB96-503404CFF. \$50. Outside U.S., Canada, Mexico \$100



### **BEN Model: Calculates Violators' Economic Benefits** from Noncompliance, (Version 4.3) (for Microcomputers).

The model calculates the economic benefit that a company gains by delaying payment necessary for compliance with environmental regulations or permits. It is also a cost analysis model that presents savings from delaying or avoiding any expenditures.

### Specifications

System: DOS operating system. Requires 232K of hard drive space; is menu driven. The software is on one 1.44M, 3.5-inch disc. Documentation included; may be ordered separately as PB96-503875CFF.

### Ordering Information

Order number PB95-502514CFF, \$50. Outside U.S., Canada, Mexico \$100



### **CASHOUT Model: Calculates Current Value of Superfund** Cleanup Costs (Version 1.5) (for Microcomputers).

CASHOUT determines in currentyear dollars what all the future clean-up costs of a Superfund site will be. Enforcement professionals can then determine quickly the total cost and use that number to 'cash out' the small contributors.

### Specifications

Requires 69K of hard drive space. The software is on one 1.44M, 3.5-inch diskette. Documentation included; may be ordered separately as PB94-141678CFF.

### Ordering Information

Order number PB96-503396CFF. \$50. Outside U.S., Canada, Mexico \$100



### **PROJECT Model: Evaluates the** Value of Supplemental Environmental Projects (SEP), (Version 1.2) (for Microcomputers).

The PROJECT Model measures the after-tax, net present value of supplemental environmental project, which regulation violators use to reduce their financial liability.

### Specifications

System: DOS operating system. The software is on one 720K, 3.5-inch disc. Documentation included; may be ordered separately as PB95-169637CFF.

### Ordering Information

Order number PB96-503800CFF, \$50. Outside U.S., Canada, Mexico \$100

### Generic Protocol for Conducting **Environmental Audits of Federal** Facilities. Second Edition.

Environmental Protection Agency, Washington, DC. Office of Federal Facilities Enforcement.

Feb 95 998p

The purpose of this protocol manual is to provide the federal environmental auditing community with a set of protocols which can be used as a basis to implement, upgrade or benchmark environmental auditing activities. The protocols, contained in this manual, can be used by auditors to assist them in the preparation for and conduct of environmental compliance audits and assessments of the environmental management systems developed to support compliance activities.

### Ordering Information

Order number PB95-215976CFF, \$108. Outside U.S., Canada, Mexico \$216



### **Hazardous Waste Generation and Commercial Hazardous Waste** Management Capacity: An Assessment.

Environmental Protection Agency, Washington, DC. Office of Solid Waste.

Dec 80 259p

The study provides a picture of the hazardous waste management industry and the potential demand for its services in 1981, at the beginning of the implementation of RCRA. In Part I, the study presents estimates of the amounts of wastes likely to be processed by waste generators themselves and the wastes likely to be treated or disposed by the hazardous waste management industry at off-site facilities. In Part II, the existing and planned capacity of off-site facilities to manage hazardous wastes is reviewed. In Part III, the study concludes by comparing the waste generation estimates with the off-site capacity data, first nationally and then for each EPA region.

### Ordering Information

Order number PB96-163357CFF, \$47. Outside U.S., Canada, Mexico \$94



### **Household Hazardous Waste** Collection Results: 1994-1995.

Illinois State Environmental Protection Agency, Springfield. Bureau of Land. Jul 95 53p

The IEPA's household hazardous waste collection program was designed to offer a viable alternative to homeowners and consumers to appropriately dispose of their hazardous and toxic wastes. Between November 11, 1989, and May 20, 1995, a total of 115 Household Hazardous Waste Collections were held. This report will focus on 61 collections conducted in state fiscal year (SFY) 1994 and 1995; July 1, 1993, through June 30, 1995.

### Ordering Information

Order number PB96-128046CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### **Initiatives to Promote Innovative Technology in Waste** Management Programs.

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

29 Apr 96 11p

This document describes several initiatives to facilitate the testing, demonstration, and use of innovative cleanup and field measurement technologies.

### Ordering Information

Order number PB96-963507CFF, \$19.50. Outside U.S., Canada, Mexico \$39

Released in the Ongoing Subscription Service, EPA Superfund Series. Contact the Subscriptions Department for further details. Single copies also available in paper copy or microfiche.

### Managing Hazardous Waste: Fulfilling the Public Trust.

Environmental Industry Association, Washington, DC. Inst. of Chemical Waste Management.

1989 14p

Managing hazardous waste means dealing responsibly with the byproducts of our industrialized society. Everyday essentials from medicine to textiles, from furniture to vehicles, are all manufactured by processes that generate by-products that must be

properly managed to safeguard human health and the environment.

### **Ordering Information**

Order number PB95-238143CFF, \$19.50. Outside U.S., Canada, Mexico \$39



Portable Sensor for Hazardous Waste. Topical Report, October 1993 — September 1994.

Physical Sciences, Inc., Andover, MA.; Sponsored by Department of Energy, Washington, DC.

Oct 94 74p

This report details the results of the first phase of a three and a half year program designed to develop a portable monitor for sensitive hazardous waste detection. The ultimate goal of the program is to develop our concept to the prototype instrument level. In this first phase, we have demonstrated the applicability of the active nitrogen energy-transfer technology to a variety of hazardous species, and have determined detection sensitivity limits for Hg, Se, organics, and chlorinated organics to be at part-per-billion levels or below.

#### Ordering Information

Order number DE96000569CFF, \$21.50. Outside U.S., Canada, Mexico \$43



Registry of Hazardous Waste or **Hazardous Substance Disposal** Sites and Hazardous Waste Remedial Fund. Annual Report, 1995.

Iowa Dept. of Natural Resources, Des Moines.

1 Jan 96 238p

Section 455B.425 of the Code of Iowa requires the Director of the Department of Natural Resources to give a full account to the Legislature and the Governor each January 1st regarding the Hazardous Waste Remedial Fund. Section 455B-427 of the Code of Iowa requires the Director of the Department of Natural Resources to transmit a report to the Legislature and the Govenor each January 1st regarding those sites listed on the Registry of Abandoned or Uncontrolled Disposal Sites. A copy of the report must also be sent to the board of supervisors of every county containing a site.

### Ordering Information

Order number PB96-136486CFF, \$41. Outside U.S., Canada, Mexico \$82

### **Remediation Technologies Screening** Matrix and Reference Guide, Second

This guide is designed to be used to identify a contaminated site and allow suitable site remediation technologies to be selected. Through the use of this document, the user is able to identify possible treatment technologies, distinguish among emerging and mature technologies, and assign a relative probability of success based on available performance data, field use, and engineering judgment.

### Ordering Information

Order number PB95-104782CFF, \$57. Outside U.S., Canada, Mexico \$114



### **USEPA Quality Assurance** Auditor Is Scheduled for a Visit: What Can I Expect.

Environmental Protection Agency, Research Triangle Park, NC. National Exposure Research Lab.

1995 16p

Environmental studies involving data collection activities conducted by or for the U.S. Environmental Protection Agency are required to undergo a review of their data collection activities. This review is usually in the form of an independent quality assurance audit. Those studies involving open-path Fourier transform infrared monitoring are also expected to meet this requirement. To help evaluate the effectiveness of QA programs designed for OP/FTIR studies, an audit questionnaire was developed. This questionnaire provides a meaningful tool in assessing the study's compliance with Agency and laboratory QA requirements and currently accepted quality control procedures. This paper introduces this audit questionnaire and discusses the basis for its development.

### **Ordering Information**

Order number PB96-139134CFF, \$19.50. Outside U.S., Canada, Mexico \$39





### Air

### Air CHIEF, Version 4.0 (on CD-ROM with Search and Retrieval Software).

Environmental Protection Agency, Research Triangle Park, NC. Emission Factor and Inventory Group.

1995 1 CD-ROM

The Air CHIEF CD-ROM contains air pollutant emissions information from published EPA reports and databases. Air CHIEF contains the complete AP-42 Volume I, the Locating and Estimating documents series on toxic substances, the Factor Information Retrieval data system, the TANKS2 database, and lists of Source Classification Codes, Standard Industrial Classification, and the Registry of Toxic Effects of Chemical Substances.

### Specifications

Minimum requirements: 486 processor running at 33 MHZ with 6 MB extended memory, a CD-ROM drive, an interface card, VGA monitor and Microsoft CD-ROM Extensions. Program ZIP is contained in TANKS2 directory. Files are in WordPerfect 5.1 format. Files are compressed. The software is on one disc.

### Ordering Information

Order number PB96-500657CFF, \$97. Outside U.S., Canada, Mexico \$194

### Air/Superfund National Technical Guidance Study Series. Guideline for Predictive Baseline Emissions Estimation for Superfund Sites, ASF-21.

Environmental Quality Management, Inc., Durham, NC..

Nov 95 108p

This report is a compendium of models (equations) for estimating air emissions and exposure point concentrations from Superfund sites under baseline or undisturbed conditions. Exposure point concentrations can be used in the baseline risk assessment to eliminate air pathway or contaminants from further consideration (i.e., screening

analyses) or can be used in support of monitoring during the exposure assessment to evaluate risk (i.e., refined analyses).

### Ordering Information

Order number PB96-125281CFF, \$25. Outside U.S., Canada, Mexico \$50

# Ambient Measurement Methods and Properties of the 189 Clean Air Act Hazardous Air Pollutants.

Battelle, Columbus, OH.

Mar 94 108p

Measurement methods for the 189 Hazardous Air Pollutants (HAPs) designated in Title III of the 1990 Clean Air Act Amendments are either identified or suggested for all but 10 of the compounds. An extensive list of chemical and physical properties are provided for all compounds. Suggestions for methods development of compounds with no written references are based on the similarity of these chemical and physical properties to other of the HAPs.

### Ordering Information

Order number PB95-123923CFF, \$25. Outside U.S., Canada, Mexico \$50



# CALMET, CALPUFF, and CALPOST Modeling System, Version 1.0 (on CD-ROM).

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Feb 96 1 CD-ROM

The CALPUFF Modeling System is composed of three basic components; CALMET, CALPUFF, and CALPOST. CALMET is a meteorological processor which was modified to enable use of vertical profiles of wind and temperature as characterized by the MM4-FDDA (Mesoscale Model-4 with Four-Dimensional Data Assimilation). Meteorological model CALPUFF is a Lagrangian puff dispersion model and CALPOST is a postprocessor program that has been modified for ease of use and interpretation. The CALPUFF Modeling System CD-ROM contains



the versions of the models that were current in December 1994 as well as sample input data and batch files for model demonstration runs, the output files produced by the demonstration runs, and databases of general utility.

### Specifications

Includes one 1.44M 3.5-inch diskette, double sided, high density. Files are compressed. The software is on one disc. Documentation included; not available separately.

#### Ordering Information

Order number PB96-502083CFF, \$110. Outside U.S., Canada, Mexico \$220

### Chemdat8: Air Emission Models for Waste and Wastewater (for microcomputers)

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

1994 1 diskette

Chemdat8 is a Lotus 1-2-3 spreadsheet that includes analytical models for estimating organic compound emissions from treatment, storage, and disposal facility processes with userspecified input parameters. The available models include disposal impoundments, closed landfills, land treatment facilities, and aeration and non-aeration impoundment processes. Predicted emissions can be viewed on the screen or printed.

### Specifications

The software is on one 3.5-inch DOS diskette, 1.44M high density. File format: Lotus 1-2-3. Documentation included; may be ordered separately as PB95-179206CFF.

### Ordering Information

Order number PB95-503595CFF, \$152. Outside U.S., Canada, Mexico \$304

# Compilation of Air Pollutant Emission Factors. Volume 1. Stationary Point and Area Sources. Fifth Edition.

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Jan 95 2050p

This document contains emission factors and process information for more than 200 air pollution source categories. These emission factors have been compiled from source test data, material balance studies, and engineering estimates, and they can be used judiciously in making emission estimations for various purposes.

When specific source test data are available, such should be preferred over the generalized factors presented in this document. Also included are particle size distribution data and procedures for sampling and analyzing surface/bulk dust loading.

### Ordering Information

Order number PB95-196028CFF, \$193. Outside U.S., Canada, Mexico \$386



### Control of Air Pollution Emissions from Municipal Waste Combustors.

Environmental Protection Agency, Research Triangle Park, NC. National Risk Management Research Lab.

19 Dec 95 20p

The paper provides a brief overview of municipal waste combustion technologies, a summary of EPA's revised air pollution rules for MWCs, a review of current knowledge concerning formation and control of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, and a discussion of the behavior and control of mercury in MWC flue gases.

Presented at the Biennial Waste Processing Conference (17th) and NAWTEC-IV Wasteto-Energy Conference, Atlantic City, NJ., March 31-April 3, 1996.

### Ordering Information

Order number PB96-184429CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### **Development of PIC Target Analyte List for Hazardous Waste** Incineration Processes.

Acurex Environmental Corp., Research Triangle Park, NC.; Sponsored by National Risk Management Research Lab., Research Triangle Park, NC.

1996 13p

The paper discusses experiments that were performed to generate, collect, and characterize organic emissions from a pilot-scale rotary-kiln hazardous waste incinerator using a complex, surrogate hazardous waste mixture in order to develop an analyte list representative of volatile, semivolatile, and nonvolatile organic HWI emissions that include products of incomplete combustion. Organic emissions were collected and analyzed using a combination of conventional and nonconventional techniques.

Presented at the Annual Conference on Incineration and Thermal Treatment Technologies (15th), Savannah, GA., May 6-10, 1996.

### **Ordering Information**

Order number PB96-184304CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### **Economic Growth Analysis** System (E-GAS) for All EPA Regions (1 - 10) (for Microcomputers).

Environmental Protection Agency, Research Triangle Park, NC. Air Pollution Prevention and Control Div.

1995 39 diskettes

The E-Gas modeling system is a forecast model used to predict national and regional economic activity in order to estimate attainment of ozone and photochemical air quality standards. Since growth in source emissions largely depends on the amount of economic activity growth in an area, a consistent set of growth factors requires forecasts using consistent Gross National Product forecasts and a consistent methodology for estimating Economic activity in Urban Airshed Model and Regional Oxidant Model modeling regions. The Economic Growth Analysis System is an economic and activity forecast model which satisfies both of these standards.

#### Specifications

DOS 5.0 or higher operating system, 580K. System requires math coprocessor, 100 MB of available fixed disk storage and VGA graphics capability.

The software is on thirty-nine 3.5-inch DOS diskettes, 1.44M high density. Models for individual EPA regions are available for \$140 per region. Call NTIS for specific regions and order numbers. Documentation included; may be ordered separately as PB96-140678CFF and PB96-140686CFF.

### Ordering Information

Order number PB96-500921CFF, \$392. Outside U.S., Canada, Mexico \$784

### AUDIOVISUAL TRAINING AIDS ON AIR QUALITY

Building Air Quality for Building Owners and Facility Managers, Training Kit - An Introduction to Building Air Quality

### Ordering Information

Order number AVA19188SS00CFF, \$165. Outside U.S., Canada, Mexico \$190

Instructional Package on Regulatory Air Quality Modeling. Part 1: Videos on the Guideline on Air Quality Models (Revised) and the Mode Clearinghouse (Video)

### Ordering Information

Order number PB94-780012CFF, \$35. Outside U.S., Canada, Mexico \$70

### Model Curriculum for School Building Inspectors (Slides)

### **Ordering Information**

Order number AVA19806SSOOCFF, \$83. Outside U.S., Canada, Mexico \$95

### Orientation to Indoor Air Quality (Instructor Package)

### Ordering Information

Order number AVA19276SS00CFF, \$198. Outside U.S., Canada, Mexico \$228

### Orientation to Indoor Air Quality (Student Materials Package)

### Ordering Information

Order number AVA19277BB00CFF, \$259. Outside U.S., Canada, Mexico \$297.85



Estimating the Effects of Air Pollution on Buildings and Structures: The U.S. Experience

### Since 1985 and Some Lessons for the

Brookhaven National Laboratory, Upton, NY.

Jan 96 14p

The National Acid Precipitation Assessment Program includes a materials damage research activity. This paper will attempt to review what was accomplished by NAPAP with respect to economic assessment of materials damage and the supporting research and will then go on to postulate some guidelines for future assessments.

United Nations Economic Commission for Europe workshop on economic evaluation of air pollution abatement and damage to buildings including cultural heritage, Stockholm (Sweden), 23-25 Jan 1996.

### Ordering Information

Order number DE96008868CFF. \$19.50. Outside U.S., Canada, Mexico \$39

### Factor Information Retrieval (FIRE) System, Version 5.1 (for Microcomputers).

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

1995 1 diskette

The Factor Information Retrieval (FIRE) system is a database management system for a database of air pollutant emission factors. EPA has compiled emission factors from a number of source categories to be used to derive approximations of pollutant emissions for a given emission source. Emission factors are not intended to represent actual emissions, but are used to estimate air pollutant emissions when no actual emission data are available. The FIRE database management system is a program designed to provide easy access to a database of emission factors. It contains emission factors for 97 of the 189 hazardous air pollutant



designated by the Clean Air Act 'criteria' pollutants. The FIRE system is a menu-driven system with a user interface patterned after Microsoft Windows.

#### Specifications

Contains executable compressed files. The software is on one 3.5-inch DOS diskette, 1.44M high density. File format: Compiled Foxpro. Documentation included; may be ordered separately as PB96-124011CFF.

### Ordering Information

Order number PB96-500590CFF, \$97. Outside U.S., Canada, Mexico \$194



Further Evaluation of Trickle Bed Biofilter Performance as a Function of Loading, Residence Time, and Biomass Control.

Cincinnati Univ., OH; Sponsored by National Risk Management Research Lab., Cincinnati, OH.

1995 12p

The 1990 Amendments to the Clean Air Act have stimulated strong interest in the use of biofiltration for the economical engineered control of Volatile Organic Compounds in effluent air streams. Trickle bed air biofilters are especially applicable for treating VOCs at high loadings. For long term, stable operation of highly loaded TBABs, removal of excess accumulated biomass is essential. Our previous research demonstrated that suitable biomass control for TBABs was achievable by backwashing. This paper presents an evaluation made of the impact of backwashing on the performance of four highly loaded TBABs.

Presented at the Annual Conference and Exposition, Water Environment Federation (68th), Miami Beach, FL., October 21-25, 1995

### **Ordering Information**

Order number PB96-116926CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### **Guidelines for Air Sampling and Analytical Method Development and** Evaluation (May 1995).

National Inst. for Occupational Safety and Health, Cincinnati, OH. Div. of Physical Sciences and Engineering.

May 95 112p

The purpose of this guideline document is to further refine the original protocol for application to sampling and analytical method development and evaluation research with additional experiments added to more fully evaluate method performance. An experimental design for the evaluation of sampling and analytical methods has been suggested. The objectives of this guideline document include: (1) providing guidance and procedures to estimate the precision, bias, and accuracy of a sampling and analysis method; and (2) providing guidance and procedures to evaluate a method relative to the 25% accuracy criterion.

### Ordering Information

Order number PB96-134564CFF, \$25. Outside U.S., Canada, Mexico \$50



**HGSYSTEM: Dispersion Models** for Ideal Gases (Version 3.0) (for Microcomputers).

American Petroleum Inst., Washington, DC. ©Dec 95 4 diskettes

As a result of many years in-house research, the gas dispersion group at Shell Research Ltd. Thornton (United Kingdom) has developed a package of mathematical models, called HGSYSTEM, to study the atmospheric dispersion of accidental pollutant releases with emphasis on denserthan-air materials. HGSYSTEM can simulate different dispersion scenarios (jet dispersion, heavy gas dispersion, passive dispersion). HGSYSTEM can model the full HF chemistry and thermodynamics. Most of the modules in the HGSYSTEM package can also be used for more general, non-reactive (ideal gas) releases as well. HGSYSTEM is in wide use for simulation of atmospheric dispersion scenarios for HF and other pollutant releases.

### Specifications

DOS operating system. Language: FORTRAN. 80386 processor or greater, MS-DOS 3.3, 4 MB RAM, 2.5 MB free disk space, and a math coprocessor recommended. Copyright Shell Internationale Research Maatschappij B.V.

The datafile is on four 3.5-inch DOS diskettes, 1.44M high density. Documentation included; may be ordered separately as PB96-184023CFF and PB96-184031CFF.

### Ordering Information

Order number PB96-501960CFF, \$152. Outside U.S., Canada, Mexico \$304

### **ASBESTOS ABATEMENT TRAINING MATERIALS**

EPA regulations require persons involved with asbestos abatement for schools and public and commercial buildings to be trained and accredited in accordance with the Asbestos Model Accreditation Plan, 40 CFR part 763. Course materials may be purchased separately or as a complete course package.



### **Asbestos Abatement Contractors** and Supervisors Model Curriculum for Training. (Revised and Updated 11/95)

This five-day course is intended for supervisors. It covers the work practices, abatement procedures, personal protection, and relevant federal regulations a consultant or contractor must consider before beginning to design or supervise abatement work. The course also covers insurance, bonding, contract specifications, and the health effects of exposure to asbestos.

#### Specifications

Instructor's syllabus with 504 slides. 264-page student notebook, 112 purple book

### Ordering Information

Order number PB96-780036CFF, \$190. Outside U.S., Canada, Mexico \$380



**Asbestos Building Inspectors** Model Curriculum for Training for Accreditation under TSCA

### Section 206 Training Package. (Revised and Updated 11/95)

This three-day course is intended for school building inspectors. It covers health effects, legal liabilities, building systems, pre-inspection planning, bulk sampling, personal protection, and record keeping.

### Specifications

Instructor's syllabus with 143 slides. 201-page student notebook, 112-page purple book

### Ordering Information

Order number PB96-780077CFF, \$150. Outside U.S., Canada, Mexico \$300



**Asbestos Management Planners** Model Curriculum for Training for **Accreditation Under TSCA** 

### Section 206 Training Package. (Revised and Updated 11/95)

This two-day course must be preceded by successful completion of the building inspector's course (described above). The course specifically prepares management planners to develop written plans for managing asbestos-containing materials in schools and for making recommendations to school officials

for response actions. It examines methods for interpreting survey results, hazard assessment, evaluating and selecting control options, and assembling the management plan itself.

#### Specifications

Instructor's syllabus with 85 slides, 170-page student notebook, 50-page green book

### Ordering Information

Order number PB96-780119CFF, \$115. Outside U.S., Canada, Mexico \$230

### **Model Curriculum for Asbestos** Abatement Workers. English Version

This four-day course is intended for those persons seeking accreditation as asbestos abatement workers. It presents a straightforward, illustrated easy-to-read approach to learning the basics of asbestos abatement. A summary of key facts and discussion questions are at the conclusion of each chapter. Also included is a hands-on section designed to simulate actual onthe-job work practices.

### Specifications

343-page Instructor's syllabus, 188-page Instructor's resources with 506 slides, 303-page student notebook, 112-page purple book, 173-page white book

### Ordering Information

Order number PB93-780922CFF, \$235. Outside U.S., Canada, Mexico \$470

Also Available in a Spanish Version

### Model Curriculum for Asbestos Abatement Workers. Spanish Version

### Specifications

341-page Instructor's syllabus, 188-page Instructor's resources with 506 slides, 301-page student notebook, 112-page purple book, 173-page white book

### Ordering Information

Order number PB93-781003CFF, \$235. Outside U.S., Canada, Mexico \$470

### **Model Curriculum for Project Designers**

This three-day project designer course is intended for those who design asbestos abatement projects and response action in schools, and public and commercial buildings. It addresses asbestos hazards in

buildings to ensure repair and abatement is properly performed. A unique design laboratory, patterned after architectural and engineering school curricula, combines lectures with hands-on exercises.

#### Specifications

371-page instructor manual, 540 slides. 42 overheads, 4 drawings, 831-page student manual

#### Ordering Information

Order number PB94-780020CFF, \$279. Outside U.S., Canada, Mexico \$558

The following courses are not for accreditation although they satisfy an AHERA requirement.



**Presentation to Accompany** "Guidance for Controlling Asbestos-Containing Materials in Buildings."

This presentation describes the major aspects of EPA's main technical guidance document on asbestos in a 1 to 1.5 hours delivery time. When accompanied by information about asbestos materials in local school buildings, this course satisfies the twohour awareness training requirement of the AHERA regulations.

### Specifications

56 slides, 17 speakers cards, 112-page purple book

### **Ordering Information**

Order number PB96-780971CFF, \$41. Outside U.S., Canada, Mexico \$82



### **Model Curriculum for Asbestos Operations and Maintenance** (O&M) Workers.

This two-day course is intended for school and other personnel who will disturb small amounts of asbestos because of routine or emergency maintenance or repair work. The course covers health effects, work practices, personal protective equipment, regulations and other topics per EPA and OSHA guidance.

### Specifications

208-page instructor's syllabus with 371 slides, 213-page student manual, 50-page green book

### Ordering Information

Order number PB96-780481CFF, \$225. Outside U.S., Canada, Mexico \$450

### Industrial Source Complex Long Term (ISCLT) (for Microcomputers).

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

### 1993 1 diskette

This EPA model is a steady-state Guassian plume model which can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. This model can account for settling and dry deposition of particulates, downwash, area, line, and volume sources, plume rise as a function of downwind distance, separation of point sources, and limited terrain adjustment. ISCLT is designed to calculate the average seasonal and/or annual ground level concentration or total deposition from multiple continuous point, volume, and/or areas sources.

### Specifications

MS DOS operating system. Language: FORTRAN. Data is in compressed format. Model contains executable files for microcomputer. The software is on one 3.5-inch DOS diskette, 1.44M high density. Documentation included; may be ordered separately as PB92-232453CFF, PB92-232461CFF, and PB92-232479CFF.

### Ordering Information

Order number PB96-502018CFF, \$60. Outside U.S., Canada, Mexico \$120



### Industrial Source Complex Short Term (ISCST) (for Microcomputers).

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

### 1993 1 diskette

This EPA model is a steady-state Gaussian plume model which can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. This model can account for settling and dry deposition of particulates, downwash, area, line, and volume sources, plume rise as a function of downwind distance, separation of point sources, and limited terrain adjustment. ISC is designed to calculate the average seasonal and/or annual ground level concentration or total deposition from multiple continuous point, volume,

and/or areas sources.

#### Specifications

MS DOS operating system. Language: FORTRAN. Data is in compressed format. Model contains executable files for microcomputer. The software is on one 3.5-inch DOS diskette, 1.44M high density. Documentation included; may be ordered separately as PB92-232446CFF, PB92-232453CFF, PB92-232461CFF, and PB92-232479CFF.

### Ordering Information

Order number PB96-502000CFF, \$60. Outside U.S., Canada, Mexico \$120



# Interactions Between Bromine and Chlorine in a Pilot-Scale Hazardous Waste Incinerator.

Acurex Environmental Corp., Research Triangle Park, NC.; Sponsored by National Risk Management Research Lab., Research Triangle Park, NC.

1996 16p

The paper discusses experiments that were performed in a 73-kW pilot-scale rotary-kiln incinerator simulator equipped with a 73-kW secondary combustion chamber during which a complex organic mixture containing bromine and chlorine was incinerated. Detailed measurements of products of incomplete combustion were made, including volatile and semivolatile organics, as well as polychlorinated and polybrominated dibenzo-p-dioxins and dibenzo furans and mixed bromochloro dioxins and furans.

Presented at the International Incineration Conference, Savannah, GA., May 6-10, 1996.

### Ordering Information

Order number PB96-184296CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### National Air Pollutant Emission Trends, 1900-1994.

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Oct 95 219p

This document presents the most recent estimates of national emissions of the criteria air pollutants. The emissions of each pollutant are estimated for many different source categories, which collectively account for all anthropogenic emissions. The report presents the total emissions from all 50 States and from each U.S. Environmental Protection Agency region in the country. These estimates

are updated annually.

Color illustrations reproduced in black and white.

### Ordering Information

Order number PB96-135678CFF, \$38. Outside U.S., Canada, Mexico \$76



### National Annual Industrial Sulfur Dioxide Emission Trends 1995-2015 - Report to Congress.

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Jun 95 73p

This report fulfills a requirement of the Clean Air Act Amendments of 1990 that EPA submit to Congress once every five years information on national annual sulfur dioxide emissions from industrial sources, such as coal burning plants, pulp and paper mills, and petroleum refineries. The report contains emissions data for each year from 1985 to the present, as well as the likely trend in emissions over the next twenty years.

#### Ordering Information

Order number PB96-139555CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### Proficiency Tests for the NIST Airborne Asbestos Program, 1993.

National Inst. of Standards and Technology (CSTL), Gaithersburg, MD. Surface and Microanalysis Science Div.

Jun 95 45p

NIST has published proficiency test instructions and summary reports for the airborne asbestos program since 1990. The reports provide a historical record of proficiency testing materials sent to the laboratories so that they can be referenced in other publications and background material can be given to those laboratories entering the accreditation program. This report contains the instructions and summary reports issued for 1993 proficiency tests.

### Ordering Information

Order number PB96-106463CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Reactive Plume Model (RPM-IV) (for Microcomputers).

Environmental Protection Agency, Washington, DC.

1996 1 diskette

The model is used for estimating short-term concentrations of primary and secondary reactive pollutants

resulting from single or, in some special cases, multiple sources if they are aligned with the mean wind direction. The model is capable of simulating the complex interaction of plume dispersion and nonlinear photochemistry. A major feature of RPM-IV is its ability to interface with input and output files from EPA's Regional Oxidant Model and Urban Airshed Model to provide an internally consistent set of modeled ambient concentrations for various pollutant species.

### Specifications

The model can be run on a mainframe computer, workstation, or IBM-compatible PC with at least 2 MB of memory. The datafile is on one 3.5-inch DOS diskette, 1.44M high density.

### **Ordering Information**

Order number PB96-502026CFF, \$60. Outside U.S., Canada, Mexico \$120

### **Screening Analysis of Ambient** Monitoring Data for the Urban Area Source Program. Final Report.

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Oct 94 396p

This report summarizes an effort to analyze a number of currently available ambient monitoring data sets for hazardous air pollutants from various urban areas in the United States. Specifically, the data were obtained from 16 studies that were generally available and quality-assured representing over 40 urban locations in the United States. Ambient air concentration data were available for 195 air contaminants, however, not all studies sampled and analyzed each of these pollutants. Moreover, the risk analysis focused exclusively on 93 HAPs for which health effects data were available.

### Ordering Information

Order number PB95-137956CFF, \$49. Outside U.S., Canada, Mexico \$98

### Phone in your order! (703) 487-4650 **VISA** 8:30 a.m. to 5:00 p.m., Eastern Time Prices are subject to change.

### Source Testing and Data Analysis for **Exposure and Risk Assessment of** Indoor Pollutant Sources.

Environmental Protection Agency, Research Triangle Park, NC. Air and Energy Engineering Research Lab.

1995 17p

The paper reviews the source evaluation process with emphasis on the types of information needed from source testing and source modeling. The types of source data and source data analysis needed for development of source risk assessments are discussed. Suggestions for dealing with imperfectly characterized sources are made. The paper discusses only those aspects of the risk assessment related to the source and source emissions model. Aspects of risk assessment related to activity patterns and health effects of pollutants are not discussed.

Presented at the American Society for Testing and Materials Symposium on Methods for Characterizing Indoor Sources and Sinks, Washington, DC., September 25-28, 1994.

### **Ordering Information**

Order number PB95-256541CFF, \$19.50. Outside U.S., Canada, Mexico \$39



**State Air Pollution Permit Program Under Subchapter 5** of the Clean Air Act as of August 8, 1995.

Air Force Inst. of Tech., Wright-Patterson AFB, OH.

May 95 162p

The Clean Air Act Amendments of 1990 imposed the requirement for a comprehensive set of state air pollution permit programs on a nationwide basis for the first time. Prior to the passage of this law, there were about thirty-five state permit programs, and they were not subject to federal supervision. During the debate in the House of Representatives it was stated that the purpose of the permit program was to clarify and make more enforceable a source's pollution control requirements. In addition, the Congress wanted to encourage public involvement in the process so that interested citizens will be able to review and help enforce a source's obligations under the Act.

### Ordering Information

Order number AD-A299 118/0CFF, \$31. Outside U.S., Canada, Mexico \$62



### TAPAS - Topographic Air Pollution Analysis System.

Bureau of Land Management, Chevenne, WY. Wyoming State Office.

May 87 16p

This report presents information on the Topographic Air Pollution Analysis System, currently under development by the Bureau of Land Management, U.S. Forest Service, and Colorado State University. TAPAS is designed to provide resource managers with air quality dispersion modeling tools to accomplish more efficient and economical air resource studies. TAPAS consists of a group of interactive air quality computer models that can be operated independently, or in combination for more detailed applications.

### Ordering Information

Order number PB96-115308CFF, \$19.50. Outside U.S., Canada, Mexico \$39



**U.S./Mexico Border Environmental Study Toxics** Release Inventory

Data. 1988—1992.

Battelle Pacific Northwest Labs., Richland, WA.; Sponsored by Department of Energy, Washington, DC.

Feb 96 102p

This report on industrial toxic chemical releases and transfers is based on information reported to the Toxics Release Inventory. This document discusses patterns of toxic chemical releases to the atmosphere, to water, to the land, and to underground injection; and transfers of toxic chemicals to Publicly Owned Treatment Work, and for disposal, treatment and other off-site transfers during the TRI reporting years 1988— 1992. Geographic coverage is limited to the US side of the 'Border Area', the geographic area situated within 100 km of the US/Mexico international boundary.

### Ordering Information

Order number DE96006829CFF, \$28. Outside U.S., Canada, Mexico \$56



### Health Effects & Risk Assessment

### **Adult Environmental Neurobehavioral** Test Battery.

Agency for Toxic Substances and Disease Registry, Atlanta, GA.

Sep 95 371p

Information in this document includes: description of the rationale for environmental test batteries; details of the national workshop that led to the development of the environmental test batteries; and provides highly specific information on administration and interpretation of the test batteries. This material incorporates collective experiences accrued from the testing of several hundred adults at Agency for Toxic Substances and Disease Registry (ATSDR) health study sites and from the initial data analyses. Part IV contains an extensive bibliography and useful appendices.

### Ordering Information

Order number PB96-109012CFF, \$49. Outside U.S., Canada, Mexico \$98

### **Analytic Study to Evaluate Associations** between Hazardous Waste Sites and Birth Defects.

New York State Dept. of Health, Albany.; Sponsored by Agency for Toxic Substances and Disease Registry, Atlanta, GA. Div. of Health Studies.

Jun 95 143p

A study was conducted to evaluate the risk of two types of birth defects (central nervous system and musculoskeletal defects) associated with mothers' exposure to solvents, metals, and pesticides through residence near hazardous waste sites. The only environmental factor showing a statistically significant elevation in risk was living within one mile of industrial or commercial facilities emitting solvents into the air.

Residence near these facilities showed elevated risk for central nervous system defects but no elevated risks for musculoskeletal defects.

### Ordering Information

Order number PB95-199196CFF, \$28. Outside U.S., Canada, Mexico \$56

### CalTOX (Trade Name): A Multimedia **Total Exposure Model for Hazardous** Waste Sites (for Microcomputers).

California Environmental Protection Agency, Sacramento. Office of Scientific Affairs.

©Sep 94 diskette

CalTOX relates the concentration of chemicals in the soil to the risk of an adverse health effect for a person living or working on or near the contaminated soil. This permits the computation of health-based soil remediation levels, given target risk levels, or assessment of human health risk, given soil concentrations. CalTOX extends Risk Assessment Guidelines for Superfund in three ways: (1) CalTOX relates the chemical concentration in the contacted air, water, soil and food to chemical concentrations in contaminated soil, (2) CalTOX treats uncertainty differently than RAGS. CalTOX will present a range of risks or healthbased soil target cleanup levels that reflect the uncertainty/variability of these estimates, and (3) CalTOX is implemented in a computer spreadsheet that makes it easier to use, yet remains open to inspection.

Ordering information for each version: (A) 3.5-inch diskette for Macintosh (order number PB95-500153CFF) or (B) 3.5-inch diskette for Windows (order number PB95-500146CFF). Both diskette versions are the same price: \$250 for U.S., Canada, and Mexico, \$500 for other areas.

Documentation included; may be ordered separately as PB95-100467CFF and PB95-100475CFF. Using CalTOX requires knowledge of environmental fate and transport and risk assessment. Current software has not been tested on any LAN System and contains no modifications for use on a LAN. Technical support for CalTOX is via a computer bulletin board and will require access to a modem and communication software.

### **Ordering Information**

Order number PB95-500146CFF, \$250. Outside U.S., Canada, Mexico \$500

### Chemical Hazard Evaluation for Management Strategies: A Method for Ranking and Scoring Chemicals by Potential Human Health and **Environmental Impacts.**

Tennessee Univ., Knoxville. Center for Clean Products and Clean Technologies.; Sponsored by Environmental Protection Agency, Cincinnati, OH. Risk Reduction Engineering Lab.

Sep 94 124p

Risk-based evaluation for these chemicals is often required to evaluate the potential impacts of chemical releases, for priority setting for regulatory action, for business decisions and to set priorities for pollution prevention. Risk-based chemical ranking and scoring combines an assessment of both the toxic effects of chemicals (human and/ or environmental) and the potential exposure to those chemicals to provide a relative evaluation of risk. The method provides an approximate ranking of direct chemical hazards to human health and the environment based on their relative toxicity and the potential for exposure.

### Ordering Information

Order number PB95-177366CFF, \$25. Outside U.S., Canada, Mexico \$50



**Development of a Workplace Risk Advisor for Human Engineering Design Review of System** Maintenance. Phase 1.

Operational Technologies Corp., San Antonio, TX.

Jun 95 80p

There is an increasing need to assess and manage workplace risk due to the presence of chemical hazards. Both strong regulatory requirements and the need to maximize worker productivity sustain this need. The lack of effective tools for handling the imprecise information frequently available for such assessments has prevented the development of comprehensive tools in the past. This study determined the feasibility for developing a Task-based Risk Assessment and Management System.

### Ordering Information

Order number AD-A297 413/7CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### **Economic Impact Analysis of OSHAs Rulemaking Process:** Lead Case Study.

Charles River Associates, Inc., Boston, MA. Apr 94 120p

This report reviews and analyzes OSHA's rulemaking process in the secondary lead industry by examining the preparation, promulgation, and subsequent economic impact of OSHA's 1979 lead exposure standard. The analysis was carried out by reviewing selected elements of the rulemaking docket to determine the position of various stakeholders at the time. The analysis also included surveying the changes that have occurred in the industry structure and its competitive environment since the rule was proposed, and surveying current secondary lead producers to determine their actual response to the rule. The objective of these tasks was to determine, to the extent possible, whether the outcomes of the rulemaking were foreseeable, the extent to which they were determined by exogenous forces, and the critical elements that drove industry response to the rule.

### **Ordering Information**

Order number PB96-108667CFF, \$25. Outside U.S., Canada, Mexico \$50



### **Emergency Response to Hazardous Material Incidents** (Training Manual).

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Nov 95 774p

This course provides emergency response personnel, primarily firefighters, police officers, and emergency medical services personnel, with the information and skills needed to recognize, evaluate, and control an incident involving the release or potential release of hazardous materials. It is intended for members of hazardous materials response teams. The focus of the course is on recognizing and evaluating a hazardous materials incident, organizing the response team, protecting response personnel, identifying and using response resources, implementing basic control measures, refining decision-making skills, and protecting the public.

### **Ordering Information**

Order number PB96-963208CFF, \$92. Outside U.S., Canada, Mexico \$184

Paper copy available as an ongoing subscription, credit card payment accepted. Single copies also available in paper copy or microfiche.

### **Environmental Compliance Assessment Protocols-Centers** for Disease Control and Prevention (ECAP-CDC).

Construction Engineering Research Lab. (Army), Champaign, IL.

Nov 94 703p

In response to the growing number of environmental laws and regulations worldwide, the Centers for Disease Control and Prevention has adopted an environmental compliance program that identifies compliance problems before they are cited as violations by the U.S. Environmental Protection Agency. The goal is to protect human health/safety and the environment. The resulting system combines federal environmental regulations, along with good management practices and risk management information, into a series of checklists that show legal requirements and which specific items or operations to review. The manual is updated continually to address new environmental compliance laws and regulations.

### Ordering Information

Order number AD-A289 087/9CFF, \$92. Outside U.S., Canada, Mexico \$184

### **Environmental Effects of Dredging:** Methods for the Assessment of the Genotoxic Effects of Environmental Contaminants. Glossary and References.

Army Engineer Waterways Experiment Station, Vicksburg, MS. Environmental Lab. Jul 95 24p

This technical note is the third in a series of three that outline and describe the principal methods that have been developed to test the potential of environmental contaminants to cause mutagenic, carcinogenic, and teratogenic effects. The information in these technical notes is intended to provide Corps of Engineers personnel with a working knowledge of the terminology and conceptual basis of genotoxicity testing.

### Ordering Information

Order number AD-A299 353/3CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### AUDIOVISUAL TRAINING AIDS ON HAZARDOUS MATERIALS

### **Hazardous Materials Incident Analysis** (Instructor Package)

### **Ordering Information**

Order number AVA11873SS00CFF, \$215. Outside U.S., Canada, Mexico \$247.25

### **Hazardous Materials Incident Analysis** (Student Materials)

### **Ordering Information**

Order number AVA11874BB00CFF, \$31. Outside U.S., Canada, Mexico \$35.65

### **Initial Response to Hazardous Materials Incidents: Basic Concept** (Instructor Package)

### Ordering Information

Order number AVA19199KK00CFF, \$310. Outside U.S., Canada, Mexico \$356.50

### **Initial Response to Hazardous Materials Incidents: Basic Concepts** (Student Materials)

### Ordering Information

Order number AVA19200BB00CFF, \$31. Outside U.S., Canada, Mexico \$35.65

### Initial Response to Hazardous Materials Incidents: Concept Implementation (Instructor Package)

### Ordering Information

Order number AVA19201KK00CFF. \$325. Outside U.S., Canada, Mexico \$373.25

### Initial Response to Hazardous Materials Incidents: Concept Implementation (Student Materials)

### Ordering Information

Order number AVA19202BB00CFF, \$135. Outside U.S., Canada, Mexico \$155.25

### Recognizing and Identifying Haz Mat 2d edition (Instructor Package)

### **Ordering Information**

Order number AVA19203SS00CFF. \$170. Outside U.S., Canada, Mexico \$195.50

### Recognizing and Identifying Haz Mat 2d edition (Student Materials)

### **Ordering Information**

Order number AVA19204BB00CFF, \$31. Outside U.S., Canada, Mexico \$35.65



### **EPA Health Effects Notebook of** the Hazardous Air Pollutants Specified in the Clean Air Act Amendments of 1990 (Draft March 1995) (for microcomputers)

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Mar 95 5 diskettes

The chemical fact sheets contained in this notebook provide a human health hazard summary for each of the hazardous air pollutants specified in the Clean Air Act Amendments of 1990. These chemicals include volatile organic chemicals, chemicals used as pesticides and herbicides, inorganic chemicals, and radionuclides. These brief summaries are intended to provide a quick reference for pertinent toxicity information and to indicate where more comprehensive and primary information can be found. This information is targeted to those concerned with toxic air pollutants at the state and local levels.

### Specifications

Each fact sheet is a Word Perfect 5.1 document. The datafile is on five 3.5-inch DOS diskettes, 1.44M high density.

### **Ordering Information**

Order number PB95-503579CFF, \$97. Outside U.S., Canada, Mexico \$194

### **Gas PISCES Project Screening Health** Risk Assessment. Topical Report, January-June 1994.

Carnot Technical Services, Tustin, CA.; Sponsored by Gas Research Inst., Chicago, IL.

Apr 95 116p

A screening level health risk assessment was prepared to facilitate the interpretation of air toxic measurements performed at four natural gas-fired combustion sources. These sources were comprised two utility boilers and two combustion turbines. In order to place the air toxic emissions in the context of other fossil fuels, results from an oil-fired and coal-fired boiler were also analyzed and compared from a risk perspective. The risk assessment was conducted in accordance with requirements set forth by the California Air Pollution Control Officer Association's AB2588 Risk Assessment Guidelines (CAPCOA,

1993). The assessment involved the use of the SCREEN2 dispersion model and the ACE 2588 risk assessment model to predict potential health risks.

### Ordering Information

Order number PB96-100672CFF, \$25. Outside U.S., Canada, Mexico \$50

### **Guidance Manual for the Integrated Exposure Uptake Biokinetic Model for** Lead in Children

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Feb 94 259p

This guidance manual has been developed to assist the user in providing appropriate input to the Integrated Exposure Uptake Biokinetic Model for Lead. The IEUBK Model is designed to model exposure from lead in air, water, soil, dust, diet, and paint and other sources with pharmacokinetic modeling to predict blood lead levels in children 6 months to 7 years old. Diskette and documentation also available, order as PB94-501517CFF and order number PB93-963510CFF.

### Ordering Information

Order number PB93-963510CFF, \$44. Outside U.S., Canada, Mexico \$88

### Hazard Assessment as a Tool for **Companies for Managing Accidental** Releases to the Environment.

Valtion Teknillinen Tutkimuskeskus, Espoo (Finland). Energy.; Prepared in cooperation with Helsinki Univ. of Technology, Espoo (Finland).

©1995 147p

This thesis studied the management of hazard assessment of accidental releases and identified some relevant methods and how they could be used to optimize assessment of accidental releases to the environment. Further, the thesis produced an approach to hazard assessment which incorporates accidental releases into a product's life-cycle assessment. The study provided information which could be used as a base for general instructions for conducting the hazard assessment of accidental releases in companies.

### Ordering Information

Order number PB96-106190CFF, \$28. Outside U.S., Canada, Mexico \$56



**Hazardous Waste Transportation** Risk Assessment - Benefits of a **Combined Deterministic and** 

### Probabilistic Monte Carlo Approach in Expressing risk Uncertainty.

Argonne National Lab., IL.; Sponsored by Department of Energy, Washington, DC. 1995 20p

This paper presents a combined deterministic and probabilistic methodology for modeling hazardous waste transportation risk and expressing the uncertainty in that risk. Both the deterministic and probabilistic methodologies are aimed at providing tools useful in the evaluation of alternative management scenarios for U.S. Department of Energy hazardous waste treatment, storage, and disposal. The probabilistic methodology can be used to provide perspective on, and quantify uncertainties in, deterministic predictions.

Waste management '95, Tucson, AZ (United States), 26 Feb - 2 Mar 1995.

### Ordering Information

Order number DE95009888CFF. \$19.50. Outside U.S., Canada, Mexico \$39

### **Health Effects Assessment Summary Tables**

Environmental Protection Agency, Washington, DC.

1995

This document is an excellent 'pointer' system to identify current literature or changes in assessment criteria for many chemicals of interest to Superfund. Tables summarize reference doses for toxicity from subchronic and chronic inhalation, oral exposure, slope factors and unit risk values for carcinogenicity based on lifetime inhalation and oral exposure, and radionuclide carcinogenicity.

### Ordering Information

Order number PB95-921100CFF, SUBSCRIPTION

Available on an Ongoing Subscription. Authorization to charge a major credit card or an NTIS deposit account is required. Price based on number of issues. Approximately three issues a year for an estimated annual cost of \$100 for U.S., Canada, and Mexico; others, \$200.

### Human Radiation Experiments Associated with the U.S. Department of Energy and Its Predecessors.

Department of Energy, Washington, DC. Assistant Secretary for Environment, Safety and Health.

Jul 95 213p

This document contains a listing, description, and selected references for documented human radiation experiments sponsored, supported, or performed by the US Department of Energy or its predecessors, including the US Energy Research and Development Administration, the US Atomic Energy Commission, the Manhattan Engineer District, and the Office of Scientific Research and Development. The list represents work completed by DOE's Office of Human Radiation Experiments through June 1995.

### Ordering Information

Order number DE95015353CFF, \$38. Outside U.S., Canada, Mexico \$76



Environmental Protection Agency, Washington, DC.

1994 1 diskette

The Integrated Exposure Uptake Biokinetic is a menu-driven, user-friendly model designed to determine exposure from lead in air, water, soil, dust, diet, paint and other sources. Pharmacokinetic modeling is used to predict blood lead levels in children six months to seven years of age. This model should be used in conjunction with the Guidance Manual for the IEUBK (NTIS order number PB93-963510CFF).

### Specifications

System: DOS operating system, 640K. Data is self-extracting. Files are compressed. Other formats available as PB93-963510CFF (paper copy). The datafile is on one 3.5-inch diskette, 1.44M high density. File format; Executable code.

### Ordering Information

Order number PB94-501517CFF, \$97. Outside U.S., Canada, Mexico \$194

### Integrated Risk Information System (IRIS) (for Microcomputers)

Environmental Protection Agency, Washington, DC. Office of Health and Environmental Assessment.

The Integrated Risk Information System provides information on how chemicals affect human health and is a primary source of EPA risk assessment information on chemicals of environmental concern. It serves as a guide for the hazard identification and dose response assessment steps of EPA risk assessments. The principal section of IRIS is the chemical files which contain: oral reference doses and inhalation reference concentrations for noncarcinogens; oral and inhalation carcinogen assessments; summarized drinking water health advisories; summaries of selected EPA regulations; supplementary data; and full bibliographic citations. There are currently over 450 chemicals in IRIS.

#### Specifications

System: IBM-PC/AT. The datafile is contained on four 1.44M, 3.5 inch diskettes, high density. File format: ASCII.

### Ordering Information

Order number PB95-591330CFF, ONGOING SUBSCRIPTION

Available as an Ongoing Subscription. Authorization to charge a major credit card or an NTIS deposit account required. Price based on number of issues. Approximate annual cost for U.S., Canada, and Mexico \$560; price for all others \$1120. Also available individually; order number PB95-591331CFF, price \$140 U.S., Canada, and Mexico; \$280 all others.



### Lead and Cadmium Exposure Study, Galena, Kansas.

Agency for Toxic Substances and Disease Registry, Atlanta, GA.

Jan 96 136p

A total of 167 residents from Galena, Kansas, and 283 residents from the southern portions of Neosho and Goodman, Missouri, participated in the study. Residents from the southern portions of Neosho and Goodman, Missouri, area served as the comparison population. Biological, environmental, and questionnaire information collected from residents of the Galena, Kansas, was compared with similar information collected from residents of the comparison area.

### Ordering Information

Order number PB96-138151CFF, \$28. Outside U.S., Canada, Mexico \$56

### National Exposure Registry: Trichloroethylene (TCE) Subregistry (on CD-ROM).

Agency for Toxic Substances and Disease Registry, Atlanta, GA.

1995 CD-ROM

The Registry was created in response to a mandate given in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 to the Agency for Toxic Substances and Disease Registry (ATSDR) to create a registry of persons exposed to hazardous substances. The Registry is a database composed of names of approximately 400 persons, along with additional information on these persons, with documented exposure to specific chemicals. The purpose of the Registry is to aid in assessing the long-term health consequences of low-level, long-term exposure to environmental contaminants.

### Specifications

Contains search and retrieval software. Contains Version 1.22 of the Statistical Export and Tabulation System (SETS) search and retrieval software. The datafile is on one disc. Hardware requirements: Fully IBM-compatible microcomputer 286/386/486 with 640K of memory; MS-DOS 3.1 or higher; 3.5 MB of free space on hard drive; Microsoft CD-ROM Extensions, version 2.0 or higher fully installed CD-ROM reader.

### Ordering Information

Order number PB95-501987CFF, \$30. Outside U.S., Canada, Mexico \$60



Particulate Air Pollution and Daily Mortality: Replication and Validation of Selected Studies.

### The Phase 1 Report of the Particle **Epidemiology Evaluation Project.**

Johns Hopkins Univ., Baltimore, MD. School of Public Health.; Sponsored by Health Effects Inst., Cambridge, MA.

©Aug 95 131p

This Health Effects Institute Special Report presents the results of Phase I of the Health Effects Institute Particle Epidemiology Evaluation Project. The project was designed to assess the replicability and validity of the results of six studies of particulate air pollution and daily mortality.

### Ordering Information

Order number PB96-138615CFF. \$28. Outside U.S., Canada, Mexico \$56



Pathogen Risk Assessment Methodology for Municipal Sewage Sludge Landfilling and Surface Disposal (for Microcomputers).

Environmental Protection Agency. Washington, DC. Office of Research and Development.

Mar 96 1 diskette

Product was developed for assessing the risk to humans of pathogens from disposal of treated municipal sewage sludge. The purpose of the (sludgeonly landfill or surface disposal) SLDGFILL model is to determine the probability of infection of a human receptor from pathogens in a sludgeonly landfill (monofill) or in a surface disposal site. The ultimate objective for the model is to assist the U.S. Environmental Protection Agency in developing technical criteria for regulatory activities. More immediate objectives include the use of the model to perform actual pathogen risk assessments and to identify research needs.

### Specifications

Product is self-executable. The software is on one 3.5-inch DOS diskette, 1.44M high density. File format: ASCII text. Documentation included; may be ordered separately as PB96-157375CFF.

### **Ordering Information**

Order number PB96-501911CFF, \$97. Outside U.S., Canada, Mexico \$194

### RISK ASSESSMENT GUIDANCE FOR SUPERFUND

Environmental Protection Agency, Washington, DC. Office of Solid Waste and Emergency Response.

This two volume set of documents provides guidance for health risk assessment of Superfund sites. Volume 1 is a three-part series with supplemental guidance.

### Risk Assessment Guidance for Superfund. Volume 1. Human Health Evaluation Manual. Part A.

Dec 89 290p

The 'Human Health Evaluation Manual' provides guidance for health risk assessment of Superfund sites by providing for the risk assessor updated procedures and policies, specific equations and variable values for estimating exposure, and a hierarchy of toxicity data sources.

### Ordering Information

Order number PB90-155581CFF, \$59. Outside U.S., Canada, Mexico \$103.50

### Risk Assessment Guidance for Superfund. Volume 1. Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals).

Dec 91 66p

Part B provides guidance on using USEPA toxicity values and exposure information to derive risk-based preliminary remedial goals for a CERCLA site. Initially developed at the scoping phase using readily available information, risk-based PRGs generally are modified based on site-specific data gathered during the remedial investigation/feasibility study.

#### Ordering Information

Order number PB92-963333CFF, \$27. Outside U.S., Canada, Mexico \$47.50

### Risk Assessment Guidance for Superfund. Volume 1. Human Health Evaluation Manual (Part C, Risk Evaluation of Remedial Alternatives).

Dec 91 77p

Part C provides guidance on the human health risk evaluations of remedial alternatives that are conducted during the feasibility study, during selection and documentations of a remedy, and during and after remedy implementation. It provides general guidance to assist in site-specific risk evaluations and to maintain flexibility in the analysis and decision-making process.

### Ordering Information

Order number PB92-963334CFF, \$27. Outside U.S., Canada, Mexico \$47.50

### Risk Assessment Guidance for Superfund. Volume 1. Human Health Evaluation Manual. Supplemental Guidance: 'Standard Default Exposure Factors'.

25 Mar 91 28p

This document supplements the Risk Assessment Guidance for Superfund: Human Health Evaluation Manual, Part A. Where exposure factors presented in the guidance differ from those in Part A, the values found in the guidance supersede those in Part A.

### Ordering Information

Order number PB91-921314CFF, \$24.50. Outside U.S., Canada, Mexico \$43

### Risk Assessment Guidance for Superfund. Volume 2. Environmental Evaluation Manual.

Mar 89 63p

Volume 2 primarily addresses Remedial Project Managers and On-Scene Coordinators, who are responsible for ensuring a thorough evaluation of potential environmental effects at sites.

### Ordering Information

Order number PB90-155599CFF, \$27. Outside U.S., Canada, Mexico \$47.50

### Principles of Developmental Toxicity Risk Assessment.

Environmental Protection Agency, Washington, DC. National Center for Environmental Assessment.

Aug 95 69p

As part of a larger guidelines effort. the Environmental Protection Agency (EPA) published guidelines for developmental toxicity risk assessment, first in 1986 and again in 1991. This was the first guidelines developed to describe a consistent approach for noncancer and nonmutagenic risk assessment. This chapter focuses on the risk assessment process used for developmental toxicity by EPA, although the guidelines represent a consensus document within the field of developmental toxicology. Three major components are discussed: hazard identification/dose-response evaluation, exposure assessment, and risk characterization.

### Ordering Information

Order number PB95-274221CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### Quick Guide (NIOSH Pocket Guide to Chemical Hazards) (for Microcomputers)

Industrial Hygiene Services, Inc., St. Louis, MO.

©1995 1 diskette

This data file provides fast and easy access to valuable chemical information derived from a variety of resources including NIOSH criteria documents and current intelligence bulletins. Information for viewing includes: OSHA permissible exposure limits and NIOSH recommended exposure limits; chemical and physical properties, including flammability ratings; synonyms and trade names; recommendations for personal protection; recommendations for respirator selections by chemical concentrations; DOT and RTECS numbers; and other data. A free demonstration disk is available by calling NTIS at (703)487-4650 and requesting NTISPR-957CFF.

### Specifications

System: IBM compatible; MS DOS operating system, 450K. Includes search software. The datafile is on one 3.5-inch diskette,

1.44M high density. LAN package for 2-4 users, \$350 (order number PB93-506335CFF); LAN package for 5-9 users, \$500 (order number PB93-506343CFF); LAN package for 10-19 users, \$650 (order number PB93-506350CFF); and unlimited LAN use, \$800 (order number PB93-506368CFF).

### **Ordering Information**

Order number PB95-501862CFF, \$141. Outside U.S., Canada, Mexico \$282

### Screening and Testing Chemicals in Commerce.

Office of Technology Assessment, Washington, DC.

Sep 95 129p

This background paper comes from a workshop held by the Office of Technology Assessment (OTA) in April 1995. The report reviews some of the many test technologies and techniques available for screening chemicals-incommerce for toxicity. Some of the test technologies, such as those for predicting carcinogenicity, are well established and results can be fairly clearly linked to real health effects in humans. Results of other tests, such as those for detecting neurotoxicity, are presently less clearly linked to actual human health effects.

### Ordering Information

Order number PB96-107545CFF, \$28. Outside U.S., Canada, Mexico \$56

### **Standard Operating Safety Guides**

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Jun 92 194p

These guides provide information on health and safety and are to complement professional judgment and experience, and to supplement existing regional office safety procedures. The documents provide guidance for ensuring health and safety of site personnel who work with hazardous substances or who work at uncontrolled hazardous waste sites.

### Ordering Information

Order number PB92-963414CFF, \$44. Outside U.S., Canada, Mexico \$77



# Toxicity Assessment of Combustion Gases and Development of a Survival Model.

Federal Aviation Administration, Washington, DC. Office of Aviation Research.

Jul 95 140p

This report presents an extensive review of the literature on the toxic and thermal hazards relating to human survival in aircraft cabin fires. Studies by various authors of exposures to single and mixed gases on humans, primates, rats, and mice are presented for different activity levels and a wide range of concentrations and temperatures.

### Ordering Information

Order number AD-A300 017/1CFF, \$28. Outside U.S., Canada, Mexico \$56





### Pesticides & Toxic Substances



Accounting for Toxic Emissions from the Global Economy: The Case of Cadmium.

Stockholm Environment Inst. (Sweden). 1995-115p

This paper examines the flow of cadmium through the global economy. with the aim of quantifying emissions of cadmium into the environment because of anthropogenic activities. First, a materials balance methodology is discussed and then applied to arrive at estimated flows of cadmium. Results are presented for 10 geopolitical world regions and for a range of economic activities including nonferrous metals production, iron and steel production, combustion of fossil fuels, fertilizer manufacture and use, cement production, and the manufacture, use and disposal of cadmium containing products.

### Ordering Information

Order number DE96711320CFF, \$25. Outside U.S., Canada, Mexico \$50

# Analytical Methods for Environmental Sampling of Chemical Warfare Agents and Their Degradation Products.

Oak Ridge National Lab., TN.; Sponsored by Department of Energy, Washington, DC. Jun 95 180p

This first technical conference promoted the standardization of analytical protocols to reliably detect chemical warfare agents and their degradation products in soil, water, and other complex environmental media. This supports the various chemical weapons disposal and emergency preparedness programs, Chemical Weapons Convention treaty compliance, installation restoration and base closure decisions. The major topics addressed were:

installation, restoration, and stockpile disposal decisions; existing analytical methods; practical applications of existing analytical techniques; immunoassay technologies; and environmental and biological fate of agents and their degradation products.

Analytical methods for environmental sampling of chemical warfare agents and their degradation products, Aberdeen, MD (United States), 20-21 Sep 1994.

### Ordering Information

Order number DE95016127CFF, \$35. Outside U.S., Canada, Mexico \$70

### Automated Data Inquiry for Oil Spills (ADIOS) for DOS (for Microcomputers).

National Oceanic and Atmospheric Administration, Seattle, WA. Hazardous Materials Response Branch.

Apr 94 diskette

The product is a software model which is a combination oil properties database and oil weathering designed to provide spill behavior information to emergency responders. Typical output is in the form of graphs that display changes in oil properties and tables or pie charts that display the amount of oil evaporated, dispersed, or remaining in the slick. The oil database has been updated to include more oils and oil properties.

### Specifications

System: Windows 3.1 or greater, 286 model or higher and highly recommend using a math coprocessor. Memory requirement: 1 MG of free RAM, 2 MB of free disk space. Also available in Macintosh version as PB95-500492CFF. The software is on one 3.5-inch DOS diskette, 1.44M high density. Documentation included; may be ordered separately as PB95-103438CFF.

### Ordering Information

Order number PB95-500450CFF, \$97. Outside U.S., Canada, Mexico \$194

# Automated Data Inquiry for Oil Spills (ADIOS) for Macintosh (for Microcomputers).

National Oceanic and Atmospheric Administration, Seattle, WA. Hazardous Materials Response Branch.

Apr 94 diskette

The product is a software model which is a combination oil properties database and oil weathering designed to provide spill behavior information to emergency responders. Typical output is in the form of graphs that display changes in oil properties and tables or pie charts that display the amount of oil evaporated, dispersed, or remaining in the slick. The oil database has been updated to include more oils and oil properties.

### Specifications

System 7.0 or greater, and Floating Point unit. Memory requirement: 1 MG of free RAM. Also available in DOS version as PB95-500450CFF. The software is on one 3.5-inch Macintosh diskette, 1.4M high density. Documentation included; may be ordered separately as PB95-103438CFF.

### Ordering Information

Order number PB95-500492CFF, \$97. Outside U.S., Canada, Mexico \$194

### Development of a Test Method for Leaching of Lead from Lead-Based Paints Through Encapsulants.

National Inst. of Standards and Technology (BFRL), Gaithersburg, MD. Building Materials Div.

Feb 96 40p

This study aims to provide a technical basis for the development of a standard test method for lead leaching through polymeric encapsulants. The effects of pigment type and concentration in the film, chemical types and pH of leaching solutions, and encapsulants of different generic resins on the leaching of lead from a lead-based film with and without an encapsulant covering it were investigated.

### Ordering Information

Order number PB96-154984CFF, \$21.50. Outside U.S., Canada, Mexico \$43



# Environmentally Safe and Effective Processes for Paint Removal.

Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine (France).

Apr 95 95p

Historically, paint removal has been achieved using chemical strippers, involving materials which contain toxic components and which create



hazardous working conditions. The process generates large amounts of hazardous waste from the chemicals used. Alternative methods for aircraft paint removal are now being investigated within the NATO nations with regard to their environmental safety and effective application. These processes include: Plastic Media Blasting, Wheat Starch Dry Media Blasting, Carbon Dioxide Pellet Blasting, Sodium Bicarbonate Blasting and Thermal Decomposition Methods (Laser, Flash Lamps/Carbon Dioxide).

Preface in French and English.

#### Ordering Information

Order number AD-A296 882/4CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### **Evaluation of the High Volume** Collection System (HVCS) for **Quantifying Fugitive Organic** Vapor Leaks.

Southern Research Inst., Chapel Hill, NC. Nov 95 118p

This report discusses a recently developed measurements technique that offers the potential for providing an easy-to-use and cost-effective means to directly measure organic vapor leaks. The method, called the High Volume Collection System, uses a high volume sampling device and a portable flame ionization detector for field analysis. The HVCS can obtain direct measurements of mass emission rates without the need for tenting and bagging. This study of HVCS method performance included both field and laboratory testing.

### Ordering Information

Order number PB96-136395CFF, \$25. Outside U.S., Canada, Mexico \$50



### Field Test of Lead-Based Paint **Testing Technologies - Technical** Report.

QuanTech, Inc., Rosslyn, VA.; Prepared in cooperation with Midwest Research Inst., Kansas City, MO.

May 95 1244p

The three primary study objectives were: (1) to characterize the performance (precision and accuracy) of portable XRF instruments under field conditions; (2) to evaluate the effect on XRF performance of interference from the material (the substrate) underlying the paint; and (3) to characterize the relationship between test kit results and the actual lead level in the paint (operating characteristic curves).

### Ordering Information

Order number PB96-125026CFF, \$131. Outside U.S., Canada, Mexico \$262

### FDA PESTICIDE ANALYTICAL MANUAL

The Pesticide Analytical Manual is a laboratory manual describing methods for the analysis of pesticide residues in foods and feeds. Details are presented for the methods used by FDA to enforce the pesticide tolerances set by EPA. The manual is divided into two volumes.

### FDA Pesticide Analytical Manual. Volume 1. Multiresidue Methods (Base Manual - 3rd Edition)

Jan 94 600p

Volume I provides details of multiresidue methods, which are used most often by chemists analyzing samples of unknown treatment history.

### Ordering Information

Order number PB94-911899CFF, \$67. Outside U.S., Canada, Mexico \$134

### FDA Pesticide Analytical Manual. Volume 1. Updates

1996 open series

Volume 1 gives complete details for the determination of FDA multi-pesticide residue methods. Sample preparation, gas chromatographic operating conductions, confirming techniques, and tabulations of analytical behavior of various chemicals through each procedure are included.

### Ordering Information

Order number PB95-911800CFF, ONGOING SUBSCRIPTION (see note below)

### FDA Pesticide Analytical Manual. Volume 2. Updates

Volume 2 presents methods for the determination of single residues. Appropriate cross reference to Volume 1 is included.

### Ordering Information

Order number PB95-911900CFF, ONGOING SUBSCRIPTION

Ongoing Subscriptions: Authorization to charge a major credit card or an NTIS deposit account required. Price based on number of issues.

### **AUDIOVISUAL TRAINING AIDS**



### پسس<sup>ا</sup> | Spill Prevention Control and Countermeasure Training Series

Environmental Protection Agency, Washington, DC.

These videos describe the SPCC regulations and protecting the environment from oil spills.

### **Spill Prevention Control and** Countermeasure Training Series, Highlights: Protecting the **Environment from Oil Spills** (VHS 1/2 inch) (Video).

This video describes an overview of the SPCC regulations and protecting the environment from oil spills. It is a highlight compilation from the 4hour SPCC series.

Duplication subject to EPA instructions. 37-minute VHS video.

### Ordering Information

Order number AVA19901VNB1CFF. \$55. Outside U.S., Canada, Mexico \$63.25

### **Spill Prevention Control and** Countermeasure Training Series, Parts 1-4: The Law, Drilling for Oil (VHS 1/2 inch) (Video).

This video gives: an overview of the SPCC regulations, regulated community, and SPCC plan requirements; an overview of OPA '90 FRP requirements; a general description of where oil is found; an explanation of drilling operations and equipment; a description of well completion process, well fluid flow, and complete well configurations; and inspection and SPCC requirements as drilling and well sites.

Duplication subject to EPA instructions. 58-minute VHS video.

### Ordering Information

Order number AVA19902VNB1CFF, \$65. Outside U.S., Canada, Mexico \$74.75

### Spill Prevention Control and Countermeasure Training Series, Parts 7: Processing, Gathering and Shipping Oil (VHS 1/2 inch) (Video).

This segment describes: oil well production facilities, equipment, and processes; gathering line systems and crude oil truck transport; crude oil pipeline systems and inspection of non-transportation-related components; oil storage at terminals and tank farms; and inspection and SPCC requirements at these sites.

Duplication subject to EPA instructions. 49-minute VHS video.

### **Ordering Information**

Order number AVA19903VNB1CFF, \$60. Outside U.S., Canada, Mexico \$69

### Spill Prevention Control and **Countermeasure Training Series, Parts** 8-10: Refining the Crude Oil (VHS 1/2 inch) (Video).

This segment describes typical refinery operations and processes; and SPCC requirements at refineries.

49-minute VHS video.

### Ordering Information

Order number AVA19904VNB1CFF, \$60. Outside U.S., Canada, Mexico \$69

### **Spill Prevention Control and** Countermeasure Training Series, Parts 11-15: The End Products and Users (VHS 1/2 inch) (Video).

This segment describes: gas processing at refineries; petrochemical facilities and processing SPCC requirements at petrochemical plants; storing oil and oil product; product pipelines; inspection and SPCC requirements at end-user facilities (hospitals, utilities, etc) and waste reclamation facilities: and inspection procedures and reports.

51-minute VHS video.

### Ordering Information

Order number AVA19905-VNB1CFF, \$60. Outside U.S., Canada, Mexico \$69

#### Label Review Manual.

Environmental Protection Agency, Washington, DC. Office of Pesticide Programs.

27 Dec 94 140p

The Labeling Center for Excellence (LCE) within the Office of Pesticide Programs (OPP) developed this manual to serve as a training tool for new employees and as a source of direction for product team members who are responsible for performing label reviews. This document includes: an overview concerning what is a pesticide and what constitutes a pesticide label and labeling; discusses general label format and legibility requirements, identifies the major parts of the label and directs the user to the appropriate chapter which contains additional information. The remainder of the manual provides the reviewer with step-by-step instructions concerning the review of a pesticide label and any associated actions such as the Pesticide Registration Action Tracking System (PRATS) entries for label reviews and situations where the Confidential Statement of Formula (CSF) affects the label language.

### Ordering Information

Order number PB95-159828CFF, \$25. Outside U.S., Canada, Mexico \$50

### Pesticide Assessment Guidelines Subdivision F, Hazard Evaluation, **Human and Domestic Animals, Series** 85-3, Dermal Absorption of Pesticides.

Environmental Protection Agency, Washington, DC. Office of Pesticide Programs.

30 Aug 94 23p

The report describes an experimental design for determining the in vivo dermal absorption of pesticides. The report contains why and when the study should be used, how the study should be designed, and how the results should be reported. Six variations of the basic study designed for determining specific exposure scenarios and/or for developing additional dose distribution kinetic information are also included.

### Ordering Information

Order number PB95-148615CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### **Pesticide Rinsate Recycling** Facilities.

North Carolina Dept. of Natural Resources and Community Development, Raleigh. Pollution Prevention Pays Program.

Jun 88 26p

The report discusses the problem of managing pesticide rinsate materials. Along with the accompanying plan, general information and design considerations are provided to assist in the construction of better and environmentally safer rinsate handling facilities. The generic design incorporates recommendations for facility size, construction materials, rinsate storage volumes, reuse scheduling, and operation and maintenance procedures.

### Ordering Information

Order number PB95-233268CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Sampling House Dust for Lead: **Basic Concepts and Literature** Review.

Westat, Inc., Rockville, MD.; Sponsored by Environmental Protection Agency, Washington, DC. Office of Prevention, Pesticides and Toxic Substances.

Sep 95 102p

This report represents an extensive literature review of sampling methods for measuring lead in house dust to highlight what is currently known about the subject. The primary purpose of the literature review was to write a comprehensive report that provides a background for standardizing house dust sampling techniques so that lead dust standards, once developed, can be used consistently and effectively. The report outlines issues related to house dust in homes; defines terms and explains basic concepts; summarizes numerous house dust sampling methods described in the literature; and discusses sampling strategies and their implications for achievable, meaningful, and cost-effective dust collection.

### Ordering Information

Order number PB96-147947CFF, \$28. Outside U.S., Canada, Mexico \$56



8:30 a.m. to 5:00 p.m., Eastern Time Prices are subject to change.



### **Toxic Chemical Hazard** Classification and Risk Acceptance Guidelines for Use in DOE Facilities. Revision 2.

Westinghouse Savannah River Co., Aiken. SC.; Sponsored by Department of Energy, Washington, DC.

24 Mar 95 61p

The concentration-limit guidelines presented in this document apply to airborne releases of chemicals evaluated with respect to human health effects for the purposes of hazard classification and categorization, risk assessment and safety analysis. They apply to all DOE facilities and operations involving the use of potentially hazardous chemicals. The guidelines do not address other nonradiological hazards such as fire, pressure releases (including explosions), and chemical reactivity, but the guidelines are applicable to hazardous chemical releases resulting from these events. This report presents evaluations and recommendations regarding analyses of accidentally released toxic chemicals.

### Ordering Information

Order number DE95017493CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### **PEST MANAGEMENT**

National Park Service

These three videos describe the National Park Service's integrated pest management system.

### **Biological Control-A Natural Alternative**

### **Ordering Information**

Order number AVA18029VNB1CFF, \$55. Outside U.S., Canada, Mexico \$64

### **Integrated Pest Management: A** Chance for the Future

### Ordering Information

Order number AVA16737VNB1CFF, \$50. Outside U.S., Canada, Mexico \$57

### **Pesticide Applicator Safety**

### Ordering Information

Order number AVA17370VNB1CFF, \$50. Outside U.S., Canada, Mexico \$57

**Toxic Substances Control Act (TSCA) Chemical Substances Inventory:** Revised Inventory Synonym and Preferred Name File Including SARA Title III (on CD-ROM).

Environmental Protection Agency, Washington, DC. Office of Pollution, Prevention, and Toxics.

Jul 96 1 CD-ROM

The TSCA Chemical Substances Inventory lists the latest public information on more than 62,000 chemicals or chemical substances manufactured or imported into the U.S. for commercial purposes as defined under the Toxic Substances Control Act. The TSCA Chemical Substances Inventory provides a link between chemicals in the workplace and regulatory requirements. The TSCA CD-ROM can assist in identifying chemical substances and crossreferencing to their regulatory names to help companies comply with Community Right To Know requirements, SARA reporting and OSHA. The data provided includes the Chemical Abstracts Service Registry Number, Preferred CA Index Name, molecular formula, and the chemical names reported by the submitters of the data. It also contains EPA codes to identify those substances that are either the subject of an EPA rule or order promulgated under TSCA or that are exempt from TSCA inventory update rule reporting, as well as, the Preferred Chemical Abstracts Index Name, CERCLA RO, RCRA code and more. Two other files are provided: the 'Premanufacture Notification (PMN) Number to EPA Accession Number Link' file as well as the SARA Title III Consolidated Chemical List data.

### Specifications

WINDOWS version requires 386 or greater processor with 4 MB RAM and WINDOWS 3.1 or greater: CD-ROM drive, Mac version requires 68020 processor or greater with 2 MB RAM and System 7.0 or greater; CD-ROM drive. Contains search and retrieval software. The datafile is on one disc. Data format: ISO 9660. 'Adobe Acrobat (Trade Name) Reader with Search for CD' software is provided.

### Ordering Information

Order number PB96-502596CFF, \$140. Outside U.S., Canada, Mexico \$280

### Toxic Substances Control Act (TSCA) Test Submissions Database (TSCATS) -Comprehensive Update (on Magnetic Tape).

Environmental Protection Agency, Washington, DC. Office of Pollution, Prevention, and Toxics.

1995 mag tapes

The Toxic Substances Control Act Test Submissions Database (TSCATS) was developed to make unpublished test data available to the public. The test data is submitted to the U.S. Environmental Protection Agency by industry under the Toxic Substances Control Act. Test is broadly defined to include case reports, episodic incidents, such as spills, and formal test study presentations. The database allows searching of test submissions according to specific chemical identity or type of study when used with an appropriate search retrieval software program. Studies are indexed under three broad subject areas: health effects, environmental effects and environmental fate. Additional controlled vocabulary terms are assigned which describe the experimental protocol and test observations. Records identify reference information needed to locate the source document, as well as the submitting organization and reason for submission of the test data.

### Specifications

VMS 4.7 operating system. Utility program: VMS copy Utility. Available in 9-track, ASCII character set tape, 1600 bpi, 6250 bpi, or 3480 cartridge.

### Ordering Information

Order number PB95-502795CFF, \$395. Outside U.S., Canada, Mexico \$790

### **FIRE ACADEMY TRAINING**

### Hazardous Materials: The Pesticide Challenge (Instructor Package)

### Ordering Information

Order number AVA11869SS00CFF, \$220. Outside U.S., Canada, Mexico \$253

### Hazardous Materials: The Pesticide Challenge (Student Materials)

### Ordering Information

Order number AVA11870BB00CFF, \$31. Outside U.S., Canada, Mexico \$35.65

### **NEW EPA CD-ROM**



### Pesticide Product Label System (PPLS) (on CD-ROM)

Environmental Protection Agency, Washington, DC. Office of Pesticide Programs.

1996 open series

The Pesticide Product Label System, a software product developed by the U.S. Environmental Protection Agency, Office of Pesticide Programs, contains images of registered pesticide labels submitted by pesticide registrants and accepted by the OPP since 1971.

The label images have been indexed by company, product, and date. The retrieval program allows the user to search by registration number, which is a combination of company number and product number. Searches can be conducted based on partial numbers if the complete number is unknown. Search results are displayed in full screen format and single or multiple pages can be printed.

Some label amendments address only portions of the label and may not represent the complete label. Review of all updates for a single product may be necessary. The label images represent the product at the time the labeling was accepted. The product may have been transferred to another company and\or canceled since the date the label was accepted and such status information is not reflected in this system.

The quality of the images varies greatly as it is dependent on the quality of the label submitted to and accepted by OPP. Since the initial version of the PPLS is the product of a conversion from images stored on microfiche, some oversized images are represented as two separate documents and will require retrieval of both to obtain the complete image.

### Specifications

Contains search and retrieval software. The datafile is on 26 discs. Requires a 486 PC with 4 MB RAM with windows 3.11 or higher; Windows 95 and NT supported. Requires 5 MB free disc space and a CD-ROM player.

### Ordering Information

Order number PB96-594040CFF, ONGOING SUBSCRIPTION

Available only as an ongoing subscription: NTIS deposit account or credit card required. Approximate annual cost for the new base set each year and 3 updates is \$640; outside the U.S., Canada, and Mexico, \$1,280. Price for base set of about 20 discs, order number PB96-594049CFF, is \$388, outside the U.S., Canada, and Mexico is \$776. Each update includes a new index CD-ROM and a labels CD, price is \$84 each.

### Use of Hazard Models in Evaluating the Effect of Exposure Duration on the Acute Toxicity of Three Pesticides.

Army Engineer Waterways Experiment Station, Vicksburg, MS. Environmental Lab. 1990-19p

Renewal toxicity tests (96 h) were conducted with the emulsifiable concentrates of three pesticides: azinphosmethyl, endosulfan, and fenvalerate. A second test design, which incorporated a 6-h period of exposure followed by 90 h of

observation, was also conducted on these three pesticides. Toxicity results from the two test types were then compared using different hazard models to test a series of null hypotheses.

Pub. in Aquatic Toxicology and Risk Assessment, ASTM STP 1096, v13 p247-263

### Ordering Information

Order number PB95-174710CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Regulatory

### Automated Waste Classification Software (WasteCat) (for microcomputer)

The WasteCat automated system helps generators, the regulated community, and the various regulatory agencies accurately determine the proper classification of potentially hazardous waste which may be subject to regulation under California and the RCRA federal law. Properly classifying a waste as hazardous or nonhazardous requires a complete understanding of the hazardous waste criteria contained in California law, and is the first critical step of hazardous waste management. Some of the highest volume hazardous waste streams regulated in California are either exempt or are not classified as hazardous waste under the Resource Conservation and Recovery Act (RCRA).

### Specifications

The software is on two 3.5-inch diskettes, 1.4M high density. Files are compressed.

### Ordering Information

Order number PB95-504205CFF, \$65. Outside U.S., Canada, Mexico \$130

### CERCLA Compliance with Other Laws Manual. Part 1. Interim Final

ICF, Inc., Fairfax, VA. 8 Aug 88 244p

This manual provides guidance to Remedial Project Managers, state personnel at state-led Superfund sites, On-Scene Coordinators, and other persons responsible for planning response actions under the Comprehensive Environmental Response, Compensation, and Liability Act. The guidance is intended to assist in the selection of on-site remedial actions that meet the applicable or relevant and appropriate requirements of the Resource Conservation and

Recovery Act, Clean Water Act, Safe Drinking Water Act, Clean Air Act, and other federal and state environmental laws as required by CERCLA.

### Ordering Information

Order number PB90-272535CFF, \$51.50. Outside U.S., Canada, Mexico \$90.50

### CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) Compliance with Other Laws Manual. Part 2. Clean Air Act and Other Environmental Statutes and State Requirements

Environmental Protection Agency, Washington, DC. Office of Solid Waste and Emergency Response.

Aug 89 176p

This manual assists Remedial Project Managers in identifying and complying with all applicable or relevant and appropriate requirements for remedial actions taken at Superfund sites. This part of the guidance manual addresses CERCLA compliance with the Clean Air Act and other environmental statutes for remedial actions.

### Ordering Information

Order number PB90-148461CFF, \$44. Outside U.S., Canada, Mexico \$77



# Code of Federal Regulations (CFRs) All Fifty Titles (on CD-ROM)

Produced by Solutions Software Corporation for the National Technical Information

This new CD-ROM is the most comprehensive source available of all federal regulations. A single issue in paper costs much more than a complete year's subscription for the CD-ROM. Re-issued quarterly, the CD-ROM identifies CFR changes from prior issues. It helps you save time searching through multiple hardcopy CFR books, save money as a NTIS electronic version subscriber, keep current on regulatory changes with quarterly updates, select parts of any regulation for printing or importing into word processing documents. This 2-disc set provides all 50 titles of the U.S. Code of Federal Regulations in Adobe(r) Acrobat(r) Portable Document File format. Complete with full text, tables, and all graphics. Includes the powerful Acrobat search and retrieval software, which provides

Boolean searching, results ranking, work stemming, thesaurus, soundslike, match case, and proximity options. Acrobat documents retain the exact 'look and feel' of the original printed version. Install utilities are included.

### Specifications

Contains search and retrieval software; Data is on two discs. Data format: ISO 9660. Requires Windows 3.1 or higher, 4 MB RAM, 8 MB recommended. 4.5 MB free disk space. Includes user instructions.

### Ordering Information

Order number SUB-5327CFF, SUBSCRIPTION

U.S., Canada, and Mexico price \$222/year; all others \$290. Issued quarterly. Single copies also available for \$79 in U.S., Canada, and Mexico; \$105 for all others request most recent issue.



Federal Register, Volume 60, No. 234, Wednesday, December 6, 1995 Proposed Rules. Part 2.

40CFR Part 122, et al. National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage; Proposed Rule.

Environmental Protection Agency, Washington, DC.

6 Dec 95 116p

The Environmental Protection Agency proposes to amend permit application requirements and application forms for publicly owned treatment works and other treatment works treating domestic sewage. TWTDS include facilities that generate sewage sludge, provide commercial treatment of sewage sludge, manufacture a product derived from sewage sludge, or provide disposal of sewage sludge.

### Ordering Information

Order number PB96-139480CFF, \$25. Outside U.S., Canada, Mexico \$50



### **RCRA Orientation Program**

Environmental Protection Agency
This videotape explains the Resource
Conservation and Recovery Act
program to new EPA and state
employees. It reviews each regulatory
subtitle requirement of the RCRA,
including the new regulations for
medical waste. The videotape is
presented in four units: 'RCRA
Orientation,' 'Subtitles D, I, & J,'
'Subtitle C,' and 'RCRA Administrative
Laws. Also included is the 1990 edition
of the RCRA Orientation Manual.

### Ordering Information

Order number AVA18880VNB1CFF, \$99. Outside U.S., Canada, Mexico \$114

### RCRA Permit Policy Compendium Update Package. Revision 3, September 1994.

Environmental Protection Agency, Washington, DC. Office of Solid Waste. Sep 94 374p

The report is an update package for insertion into the eleven-volume RCRA Permit Policy (See PB92-111707CFF). Memoranda in this revision package are from October 1993 through September 1994. In order to have a complete set of the RCRA Permit Policy Compendium, one must have the basic set cited above, revision update package 1 (PB92-182518CFF), revision update package 2 (PB94-100252CFF), and this revision package.

### Ordering Information

Order number PB95-109773CFF, \$92. Outside U.S., Canada, Mexico \$184

### RCRA Permit Policy Compendium Update Package. Revision 2, September 1993

Environmental Protection Agency, Washington, DC. Office of Science and Technology.

Sep 93 668p

This report is an update package for insertion into the RCRA permit policy compendium. (See PB92-111707CFF, the complete set, or individual volumes - PB92-111715CFF; 723; 731; 749; 756; 764; 772; 780; 798; 806; 814 and revision 1 - PB92-182518CFF). The user's guide and keyword index volume is replaced; instructions for inserting new and revised documents are included.

### ENVIRONMENTAL ASSESSMENT AND MANAGEMENT (TEAM) GUIDE

Construction Engineering Research Lab. (Army), Champaign, IL.
Environmental assessments help determine compliance with current environmental regulations. The Environmental Assessment and Management Guide was developed for use by all DOD components. The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review.

### Environmental Assessment and Management (TEAM) Guide. Revision.

Sep 95 1502p

The TEAM Guide is an update, revision, and replacement of the current U.S. ECAMP. U.S. ERGO, U.S. ECAS, and DLA compliance assessment checklist manuals and will be continually updated with new compliance laws and regulations.

Revision of Guide dated Nov 94, AD-A286 748.

### Ordering Information

Order number AD-A301 082/4CFF, \$140. Outside the U.S., Canada, Mexico \$380

### **Environmental Assessment and Management (TEAM) Guide. Iowa Supplement.**

Oct 95 478p

The Iowa Supplement was developed to be used in conjunction with the TEAM Guide, using existing Iowa state environmental legislation and regulations as well as suggested management practices.

### Ordering Information

Order number AD-A301 018/8CFF, \$57. Outside U.S., Canada, Mexico \$114

### Environmental Assessment and Management (TEAM) Guide. Utah Supplement.

Oct 95 598p

The Utah Supplement was developed to be used in conjunction with the TEAM Guide, using existing Utah state environmental legislation and regulations as well as suggested management practices.

### Ordering Information

Order number AD-A301 038/6CFF, \$67. Outside U.S., Canada, Mexico \$134

### Environmental Assessment and Management (TEAM) Guide. Arizona Supplement.

Jul 95 393p

The Arizona Supplement was developed to be used in conjunction with the TEAM Guide, using existing Arizona state environmental legislation and regulations as well as suggested management practices.

### Ordering Information

Order number AD-A301 045/1CFF, \$49. Outside U.S., Canada, Mexico \$98

This package contains two 3.5-inch diskettes, IBM compatible.

### Ordering Information

Order number PB94-100252CFF, \$101. Outside U.S., Canada, Mexico \$202



### RCRA/UST, SUPERFUND AND EPCRA HOTLINE TRAINING MODULES



Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

These training modules are just a few from over forty that are available from the National Technical Information Service. Each addresses a particular aspect of the RCRA/UST, Superfund and EPCRA regulations. For a complete listing of these training modules, call the NTIS Fax Direct Information Service, (703) 487-4300, and request document #8760.

RCRA/UST, Superfund and EPCRA Hotline Training Module. Introduction to Hazardous Waste Identification (40 CFR Part 261) Updated as of July 1995.

33p

#### Ordering Information

Order number PB96-780143CFF, \$19.50. Outside U.S., Canada, Mexico \$39

RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to RCRA Subtitle I. Underground Storage Tanks (40 CFR Part 280) Updated as of July 1995.

19p

### Ordering Information

Order number PB96-125752CFF, \$19.50. Outside U.S., Canada, Mexico \$39

RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to Treatment, Storage, and Disposal Facilities (40 CFR Parts 264/265, Subparts A-E) Updated as of July 1995.

20p

### Ordering Information

Order number PB96-780192CFF, \$19.50. Outside U.S., Canada, Mexico \$39

RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to Hazardous Waste Incinerators (40 CFR Parts 264/265, Subpart O) Updated as of July 1995.

16p

### Ordering Information

Order number PB96-780283CFF, \$19.50. Outside U.S., Canada, Mexico \$39

RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to RCRA Enforcement and Compliance, Update as of July 1995.

16p

### Ordering Information

Order number PB96-780390CFF, \$19.50. Outside U.S., Canada, Mexico \$39 RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to Other Laws That Interface with RCRA, Updated as of July 1995.

25p

### Ordering Information

Order number PB96-780432CFF, \$19.50. Outside U.S., Canada, Mexico \$39

RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to EPCRA/SARA Title III (EPCRA Sections 301-330; 40 CFR Parts 350-372). Updated as of November 1995.

14r

### Ordering Information

Order number PB96-780606CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to Statutory Overview of CERCLA.

Mar 96 18p

Released in the Ongoing Subscription Service, EPA Superfund Series. Contact the Subscription Department for further details. Single copies also available in paper copy or microfiche.

### Ordering Information

Order number PB96-963214CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### RCRA/UST, Superfund, and EPCRA Hotline Training Module. Introduction to Superfund Liability, Enforcement, and Settlements.

Mar 96 18p

Released in the Ongoing Subscription Service, EPA Superfund Series. Contact the Subscription Department for further details. Single copies also available in paper copy or microfiche.

### Ordering Information

Order number PB96-963217CFF, \$21.50. Outside U.S., Canada, Mexico \$43 Title III (SARA and Clean Air Act Amendment) Emergency Planning and Community Right-to-Know Act and Accidental Release Prevention Consolidated Chemical List (for Microcomputers).

Environmental Protection Agency, Washington, DC. Office of Pollution, Prevention, and Toxics.

Jun 94 diskette

This consolidated chemical list includes chemicals subject to reporting requirements under Title III of the Superfund Amendments and Reauthorization Act of 1986, also known as the Emergency Planning and Community Right-to-Know Act, and chemicals listed under section 112(r) of Title III of the Clean Air Act Amendments of 1990. This consolidated list has been prepared to help firms handling chemicals determine whether they need to submit reports under sections 302, 304, or 313 of SARA Title III and, for a specific chemical, what reports may need to be submitted. It will also help firms determine whether they will be subject to accident prevention regulations under CAA section 112(r). Separate lists are also provided of Resource Conservation and Recovery Act waste streams and unlisted hazardous wastes, and of radionuclides reportable under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

### Specifications

This product contains text only. The customer must provide their own search and retrieval software. Diskette contains self-extracting compressed files. Requires 6.5Mb of hard disk storage. Print software produces printed output from the dBase files for those who do not have dBase. No software other than DOS is required to use print program. The datafile is on one 3.5-inch DOS diskette, 720K double density. File format: dBase III. Documentation included; may be ordered separately as PB94-213659CFF.

### Ordering Information

Order number PB95-503165CFF, \$97. Outside U.S., Canada, Mexico \$194



### Soil



**Determination of Background** Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites.

Idaho National Engineering Lab., Idaho

Dec 95 35p

The purpose of this paper is to provide scientists investigating hazardous waste sites a summary of the technical issues that need to be considered when determining if a site (i.e., hazardous waste site/area of concern) has elevated levels of inorganics relative to local background concentrations. Issues discussed include selection of background sampling locations, considerations in the selection of sampling procedures, and statistical analyses for determining whether contaminant levels are significantly different on a potential waste site and a background site.

### Ordering Information

Order number PB96-145412CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### HyperVentilate - Decision Support Software for Soil Vapor Extraction **Technology Application (IBM and** Macintosh Version). Version 2.0 (for Microcomputers).

Environmental Protection Agency, Cincinnati, OH. Risk Reduction Engineering Lab.

Jan 93 2 diskettes

Soil Vapor Extraction is a proven, in site corrective action technology that can remove Volatile Organic Compounds and selected residual petroleum hydrocarbons from unsaturated soils. To assist regulators, investigators, and Underground Storage Tank owners in evaluating whether SVE is an appropriate cleanup technology for use at UST sites, decision support software entitled HyperVentilate has been developed. HyperVentilate is an interactive, software guidance system for evaluating the feasibility of using SVE at a specific site based on site and contaminant characteristics. HyperVentilate is designed to: (1) identify the level of site data required to evaluate SVE systems, (2) evaluate soil permeability test results, (3) approximate the minimum number of extraction wells likely to be needed, and (4) provide a rough approximation of the system's desired and maximum removal rates.

### Specifications

System: IBM compatible or Apple Macintosh; MS DOS or Apple Macintosh operating system, 24MB. Language: Fortran C++. The software is on two 3.5-inch diskettes, 800K or 1.44M double density. Documentation included: may be ordered separately as PB93-134880CFF.

### Ordering Information

Order number PB93-502664CFF, \$152. Outside U.S., Canada, Mexico \$304



8:30 a.m. to 5:00 p.m., Eastern Time

### Low Temperature Thermal Aeration (LTTA (Trade Name)) Process, Canonie **Environmental Services, Inc.:** Applications Analysis Report.

PRC Environmental Management, Inc., Chicago, IL.

Jul 95 71p

A field demonstration was conducted under the SITE program to evaluate the Low Temperature Thermal Aeration (LTTA) treatment technology developed by Canonie Environmental Services Corporation at an Arizona site. The LTTA system thermally desorbs organic compounds from contaminated soil without heating the soil to combustion temperatures. During the demonstration, the LTTA system treated site soils contaminated primarily with seven pesticides: toxaphene, DDT, DDD, DDE, deildrin, and full-scale operations to obtain treatment data for soils contaminated with petroleum hydrocarbons, VOCs, SVOCs and organochlorine pesticides.

### Ordering Information

Order number PB95-274262CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### Proposals for Intervention Values for Soil Clean-Up: Second Series of Chemicals.

Dec 94 170p

In this report, proposals will be presented for intervention values for other chemicals on the basis of an ecotoxicological and a humantoxicological evaluation. Where necessary updates of the procedure are described or referred to. Intervention values are proposed for azinphos methyl, organotin compounds, chlordane, heptachlor, heptachlor epoxide, endosulfan, dioxins, methylethylketone (2butanone), antimony, beryllium and boron. Although nitrate has been evaluated, a proposal has not yet been given.

### Ordering Information

Order number PB96-104948CFF, \$31. Outside U.S., Canada, Mexico \$62

### Selected Laboratory Studies on Mercury. Topical Report, October 1992-December 1994.

North Dakota Univ., Grand Forks. Energy and Environmental Research Center.; Sponsored by Gas Research Inst., Chicago, IL. and Department of Energy, Morgantown Energy Technology Center, Morgantown, WV.

Mar 95 49p

Four laboratory study topics are covered in four parts of this report. Studies included (1) experiments to determine the best method for the preservation and storage of mercury-containing field samples, (2) leaching studies to determine the relevance of their use in determining hazardousness, (3) methods development to facilitate the analysis of toxicity characteristic leaching procedure (TCLP) leachates, and (4) methods development to facilitate the analysis of highly contaminated samples.

### Ordering Information

Order number PB95-271201CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### Terrestrial Ecological Risk Assessment Army Materials Technology Laboratory.

Weston (Roy F.), Inc., West Chester, PA. Aug 95 126p

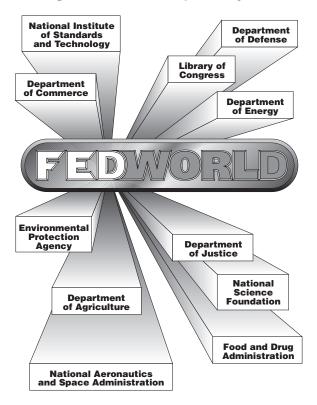
The objectives of this ecological risk assessment are to identify and estimate the potential terrestrial ecological impacts associated with the chemicals of potential concern detected in soils at the U.S. Army Materials Technology Laboratory (AMTL) - Site in Watertown, Massachusetts. The assessment focuses on the potential for exposure and impact to terrestrial fauna that inhabit or are potential inhabitants of the site. The technical guidance for performance of the ecological risk assessment comes primarily from numerous other information sources were used to assist in this report preparation and are included in the references section.

### **Ordering Information**

Order number AD-A299 340/0CFF, \$28. Outside U.S., Canada, Mexico \$56

# **FedWorld®**

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### Solid Waste



**Biennial Reporting System (BRS) Data: Generation and** Management of Hazardous Waste, 1993 (Final Data) (on Magnetic Tape).

Environmental Protection Agency, Washington, DC. Office of Solid Waste.

1993 magnetic tapes

The product contains data compiled for the 'National Biennial RCRA Hazardous Waste Report (Based on 1993 data)'. The data were collected by states. The data contain information describing the RCRA waste generated and/or managed during 1993 by RCRA Treatment, Storage and Disposal Facilities and RCRA Large Quantity Generators. Data are reported by sites meeting the LQG and/or TSDF definitions. Sites are identified by their EPA/RCRA identification number. Response codes match those of the '1993 Hazardous Waste Report: Instructions and Forms' (EPA Form 8700-13-A/B) (Revised 08-93).

### Specifications

Utility program: IEBGENER. Available in 9-track, EBCDIC character set tape. Documentation included; not available separately.

### Ordering Information

Order number PB96-502182CFF, \$525. Outside U.S., Canada, Mexico \$1,050



Environmental Factor(TM) - RCRA Biennial Reporting System (BRS) 1993 (on CD-ROM).

Olewine (Nancy B.) Co., New York. Apr 96 1 CD-ROM

Environmental Factor(tm) unleashes the invaluable information found in this key EPA data source on hazardous waste handlers and offers cradle-tograve waste tracking. It's easy to search and display: (1) Detailed information on hazardous wastes generation, management and minimization by companies who are

large quantity generators; and (2) Data on the waste management practices of treatment, storage and disposal (TSD) facilities from the EPA Biennial Reporting System, which is collected every other year. Environmental Factor's powerful database retrieval system lets you: (1) Use owner/ operator information and names, titles and telephone numbers of project managers for prospecting. (2) Browse detailed data on TSD facility and large quantity generators' activities such as onsite waste treatment, disposal, or recycling, offsite waste received, and waste generation and management. (3) Monitor a TSD's hazardous waste trans/shipments by waste code. (4) Locate a TSD handling a waste code within a geographic area of interest. (5) Produce a detailed report of all waste shipments or shipments received for a TSD. The product includes databases, search and retrieval software on one CD-ROM, an installation diskette and User's Guide. Environmental Factor has online context-sensitive help from any screen and a printed User's Guide describing installation and step-by-step procedures for searching, retrieving and exporting. Hotline support is also available for no additional charge.

### Specifications

Contains search and retrieval software. The datafile is on one disc. Data format: ISO 9660/High Sierra. DOS operating system. PC 246 or greater with one 4 MB hard disk space and one CD-ROM drive.

### Ordering Information

Order number PB96-502604CFF, \$750. Outside U.S., Canada, Mexico \$1,100



**Environmental Factor(TM)** System - RCRA Hazardous Waste **Handler Information** (on CD-ROM).

Olewine (Nancy B.) Co., New York. Apr 96 CD-ROM

Environmental Factor(tm) unleashes the invaluable information system on hazardous waste handlers.

Environmental Factor's powerful database retrieval system lets you: (1) Search for RCRA facilities by permit type, SIC code, waste codes, corrective action or violation information, Treatment, Storage and Disposal facility (TSD) status, generator and

transporter status and more. (2) View compliance information - dates of evaluation, violation, enforcement and corrective action. (3) Lookup facilities by waste processing categories of marketing, transporting, processing and energy recovery. (4) Produce facility profile reports showing waste activity or compliance history.

The product includes databases, search and retrieval software on one CD-ROM, an installation diskette and User's Guide

More information is available by fax by calling (703) 487-4140 and asking for product code: 8679.

#### Specifications

Contains search and retrieval software. The datafile is on two discs. Data format: ISO 9660/High Sierra. DOS operating system. PC 246 or greater with one 4 MB hard disk space and one CD-ROM drive. Documentation not available separately.

#### Ordering Information

Order number PB96-593440CFF, ONGOING SUBSCRIPTION

Available as an ongoing subscription, credit card or NTIS deposit account required. Price based on number of issues. Updated approximately three times a year. Approximate annual cost is \$2,250; price outside U.S., Canada, and Mexico is \$3,300. Single issues also available; order number PB96-593441CFF, price \$750; price outside U.S., Canada, and Mexico is \$1,100.



Environmental, Economic and **Energy Impacts of Material Recovery Facilities: A MITE** Program Evaluation.

Weston (Roy F.), Inc., Wilmington, MA; Prepared in cooperation with Solid Waste Association of North America, Silver Spring, MD;

Aug 95 211p

The report documents an evaluation of the environmental, economic, and energy impacts of material recovery facilities conducted under the Municipal Solid Waste Innovative Technology Evaluation Program. The primary objective of the evaluation was to understand the effects of MRF operations on public health and the environment, as well as on occupational health and safety.

### Ordering Information

Order number PB96-130489CFF, \$38. Outside U.S., Canada, Mexico \$76

### Generation and Management of CESQG Waste.

ICF, Inc., Fairfax, VA.; Sponsored by Environmental Protection Agency, Washington, DC. Office of Solid Waste. Jul 94 54p

The report summarizes existing data on the waste generation and management practices of Conditionally-Exempt Small Quantity Generators. It includes data on the number of CESOGs and the CESOG waste volume. Discussion comprises major CESQG waste generating industries, major CESQG waste types, and CESQG waste management practices. Appendix A contains detailed information on the sources of information. Appendix B lists the requirements for CESQGs in all 50 states and the District of Columbia. Appendix C lists available federal and state documents that encourage pollution prevention and proper waste management by CESQGs in some CESQG waste generating industries.

### Ordering Information

Order number PB95-208898CFF, \$21.50. Outside U.S., Canada, Mexico \$43

# Integrated Facility for Municipal Solid Waste Disposal, Electrical Generation, and Desalination.

Washington Univ., Seattle. Dept. of Civil Engineering.

1995 130p

A preliminary design was completed for a facility that uses municipal solid waste as fuel for generating electricity and cogeneration steam for a seawater desalination unit. An average city of 100,000 population is the basis of the design. The design showed that heat from the combustion of municipal solid waste will provide nearly 2 percent of per capita electrical power needs and 7 percent of fresh water requirements.

### Ordering Information

Order number AD-A301 040/2CFF, \$28. Outside U.S., Canada, Mexico \$56





# TEST METHODS FOR EVALUATING SOLID WASTE PHYSICAL/CHEMICAL METHODS (SW-846) ON CD-ROM



Environmental Protection Agency, Office of Solid Waste

This invaluable manual provides test procedures and guidance which are recommended for use in conducting the evaluations and measurements needed to comply with the Resource Conservation and Recovery Act (RCRA), Public Law 94-580, as amended. These methods are approved by the U.S. EPA for obtaining data to satisfy the requirements of 40 CFR, Parts 122 through 270, promulgated under RCRA, as amended. This manual presents the state of the art in routine analytical tests adapted for the RCRA program. It constituents in wastes, determining the hazardous characteristics of wastes (toxicity, ignitability, reactivity, and corrosivity), and for determining physical properties of wastes. It also contains guidance on how to select appropriate methods. Final Updates II, IIA, and IIB are the most recent promulgated updates by EPA.

### Specifications

System requirements: Windows 3.1, 95 or NT 3.5 or later, 386 or greater processor with 4 MB RAM. Mac version: 68020 processor or greater with 2 MB RAM and System 7.0 or greater, 4.7 MB disk space. UNIX version for SUN SPARC station or HP 5 Series 9000.

### **Ordering Information**

Order number PB95-503249CFF, \$350. Outside U.S., Canada, Mexico \$460 5 LAN User version available, order number PB95-504171CFF, \$875, outside U.S., Canada, Mexico \$1,135.



### Superfund



Application of the CERCLA **Municipal Landfill Presumptive** Remedy to Military Landfills (Interim Guidance).

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Apr 96 16p

This directive highlights a step-by-step approach to determining when a specific military landfill is an appropriate site for application of the containment presumptive remedy. It identifies the characteristics of municipal landfills that are relevant to the applicability of the presumptive remedy, addresses characteristics specific to military landfills, outlines an approach to determining whether the presumptive remedy applies to a given military landfill, and discusses Administrative Record documentation requirements.

### Ordering Information

Order number PB96-963307CFF, \$19.50. Outside U.S., Canada, Mexico \$39

Released in the Ongoing Subscription Service, EPA Superfund Series. Contact the Subscription Department for further details. Single copies also available in paper copy or microfiche.

### **Compendium of Superfund Field Analytical Methods-Draft** (Date of Coverage - May 1993) (for microcomputers)

Environmental Protection Agency, Washington, DC. Hazardous Site Evaluation Div.

Apr 95 2 diskettes

The Draft Field Methods Compendium, containing over 150 sample collection and onsite analytical methods, is provided to encourage continuity and innovation in the use of onsite field methods throughout the Superfund program. It is intended to form the basis for the management of a field analytical service.

### Specifications

This product contains text only. Customers must provide their own search and retrieval software. DOS operating system. Adaptable to Microsoft Word application. Files are compressed. The datafile is on two 3.5-inch DOS diskettes, 360K double density. File format: WordPerfect

### Ordering Information

Order number PB95-502498CFF, \$97. Outside U.S., Canada, Mexico \$194



**Emergency Response** Notification System (ERNS), 1994 (on Magnetic Tape).

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

1994 magnetic tapes

The Emergency Response Notification System is a computer data base containing information on release notifications of oil and hazardous substances that have occurred throughout the United States and have been reported to the National Response Center, the ten EPA Regions, or the U.S. Coast Guard. The initial notification data may be updated with information from various federal, state, and local response authorities as appropriate. ERNs data can be used to analyze release notifications, support emergency planning efforts, and assist decision makers in developing spill prevention programs.

### Specifications

This product contains text only. Customers must provide their own search and retrieval software. Operating system: VMS V5.5-2.3450 cartridge magnetic tape. ASCII character set tape.

Also available on 6250 bpi, \$240, outside the U.S., Canada, Mexico \$480. Documentation included; may be ordered separately as PB94-213584CFF.

### Ordering Information

Order number PB96-500954CFF, \$265. Outside U.S., Canada, Mexico \$530



**Environmental Factor (tm)** System: Superfund Site Information from Five EPA Databases (on CD-ROM)

Environmental Factor puts today's technology to work to provide a better, more cost-efficient and timesaving way to access EPA information on hazardous waste sites. Environmental consultants, insurers, and reinsurers, corporate risk assessors and companies actively involved in the generation, transport, storage or cleanup of hazardous waste materials can use its user-friendly information retrieval system to gain rapid access to vital information in immediately-usable form. Search, retrieve, and export information in real time. No more waiting for the mail or overnight delivery services to deliver hard copies of voluminous listings and individual site reports.

More than 200,000 pages of EPA hazardous waste site information are contained in 5 related databases: 1) Site data from the National Priority List and CERCLIS databases, Potentially Responsible Parties and Records of Decision summaries; 2) Complete PRP information; 3) EPA Records of Decision (Full Text); 4) entire Civil Enforcement Docket; and 5) Glossary of EPA terms, abbreviations and acronyms.

Environmental Factor's powerful database management engine gives even the most inexperienced computer user extensive search capabilities, including wildcard, phonetic and direct cross reference searches across multiple databases. The first menu option delivers information from the NPL, CERCLIS site data, PRP and RODs summary information. Enter a set of search criteria and then immediately access displays containing information from all of these databases. Get full PRP information and full text RODs summary.

### Specifications

Contains search and retrieval software. Requires one CD-ROM drive and DOS 3.0 or higher and 4 MG hard disk space. Data format: ISO 9660/High Sierra.

### Ordering Information

Order number PB96-593431CFF, \$1,250. Outside U.S., Canada, Mexico \$1,625

Also available as an ongoing subscription, NTIS deposit account or credit card

required. Price based on number of issues. Updated approximately three times a year, call the Subscription Department, (703) 487-4630 for further details.



Innovative Treatment Technologies: Annual Status Report (Seventh Edition). Applications of New

### Technologies at Hazardous Waste Sites2

Environmental Protection Agency, Washington, DC. Technology Innovation Office.

Sep 95 87p

This report documents the status of application of innovative treatment technologies in the Superfund program. It presents information on some, but not all, projects applying innovative treatment technologies at non-superfund sites such as those subject to corrective action under the Resource Conservation and Recovery Act and those being addressed by the Department of Defense, and the Department of Energy.

### **Ordering Information**

Order number PB96-131693CFF, \$21.50. Outside U.S., Canada, Mexico \$43

# Preliminary Ranking Evaluation Score (PREscore), Version 4.0 (for Microcomputers)

Environmental Protection Agency, Washington, DC. Hazardous Site Evaluation Div.

Aug 94 1 diskette

The PREscore computer program has been developed to assist Superfund site assessment investigators in Hazard Ranking System site scoring. The HRS is used to assess the relative threat associated with actual or potential releases of hazardous substances to ground water, surface water, soil, and air. The HRS is the primary means by which EPA evaluates sites for the National Priorities List, the list of the hazardous waste sites that are eligible for remedial funding under the Superfund program.

### Specifications

The software is on one 3.5-inch DOS diskette, 1.44M high density. Documentation included; may be ordered separately as PB93-192698CFF. System: MS DOS 3.1 operating system, 384K. Language: Compiled 'C'. Contains executable files.

### Ordering Information

Order number PB96-500004CFF, \$97. Outside U.S., Canada, Mexico \$194



### Revised Guidance on CERCLA Settlements with De Micromis Waste Contributors.

Environmental Protection Agency, Washington, DC. Office of Enforcement and Compliance Assurance.

3 Jun 96 44p

This policy supersedes EPA's 1993 guidance on de micromis settlements and doubles the level previously identified for small party protection. This means that EPA's policy is to not pursue parties whose contribution is equal to or less than: (1) 0.002% of total volume or 110 gallons (such as two 55-gallon drums) or 200 pounds of materials containing hazardous substances, whichever is greater, or (2) 0.02% of total volume, where a contributor sent only Municipal Solid Waste.

### Ordering Information

Order number PB96-180484CFF, \$21.50. Outside U.S., Canada, Mexico \$43



# Three Multimedia Models Used at Hazardous and Radioactive Waste Sites.

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Jan 96 90p

The report provides an approach for evaluating and critically reviewing the capabilities of multimedia models. The study focused on three specific models: MEPAS version 3.0, MMSOILS Version 2.2, and PRESTO-EPA-CPG Version 2.0. The approach to model review advocated in the study is directed to technical staff responsible for identifying, selecting and applying multimedia models for use at sites containing radioactive and hazardous materials.

### Ordering Information

Order number PB96-963303CFF, \$25. Outside U.S., Canada, Mexico \$50

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8:30 a.m. to 5:00 p.m., Eastern Time Prices are subject to change.

### NATIONAL PRIORITIES LIST SITES, 1995



Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

These documents describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing. Information provided includes types of contaminants that have been discovered and related threats to public and ecological health; and the cleanup activities completed, underway, or planned. They are arranged in alphabetical order by site name and issued by state or U.S. territory.

For a complete listing of NPL Sites documents, call NTIS Fax Direct at (703) 487-4099 and enter document #432.



### Water

# Analytical Methods for the Determination of Pollutants in Pharmaceutical Manufacturing Industry Wastewater.

Environmental Protection Agency, Washington, DC. Engineering and Analysis Div.

Feb 95 127p

The U.S. Environmental Protection Agency (EPA or the Agency) is proposing effluent limitations guidelines and standards for promulgation at 40 CFR Part 439 for the Pharmaceutical Manufacturing Industrial category to control the discharge of pollutants into surface water of the United States. This compendium of test procedures (methods) supports the proposal. These methods or the referenced methods must be used for filing permit applications and for compliance monitoring under the National Pollutant Discharge Elimination System (NPDES) program.

### Ordering Information

Order number PB95-201679CFF, \$28. Outside U.S., Canada, Mexico \$56

### Bibliography of Storm and Combined Sewer Pollution Control R and D Program Documents (Revised).

Environmental Protection Agency, Cincinnati, OH. Risk Reduction Engineering Lab.

Jan 95 33p

This report is a complete Bibliography of the U.S. Environmental Protection Agency's Storm and Combined Sewer Overflow Pollution Control Research Program published documents (reports, proceedings, and papers) spanning the period from inception (the 1960's) to the present. The purpose of the SCSP is to develop methods for the management and control of urban storm-induced pollution. It is intended that this

Bibliography will be updated periodically as new SCSP documents are published.

### Ordering Information

Order number PB95-173217CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Biotechnology To Separate and Treat Metals in Sludge and Wastewater - A Literature Review.

Construction Engineering Research Lab. (Army), Champaign, IL.

Sep 95 45p

Biologic separation/treatment of metals from industrial sludge has been identified as a possible alternative to conventional technologies for treating industrial sludge. Biologic treatment of sludge uses naturally occurring biochemical reactions in which pollutants can be used as resources. The process offers a low-cost, highly efficient alternative to existing sludge treatment methods. This report summarizes a literature review that examined the development and status of biotechnology to separate and treat metals in sludge and wastewater.

### Ordering Information

Order number AD-A301 090/7CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Chronic Administration of L-NAME in Drinking Water Alters Working Memory in Rats.

Armstrong Lab., Brooks AFB, TX. Occupational and Environmental Health Directorate.

1995 7p

To examine the role of nitric oxide (NO) in the maintenance of working memory of rats, the effects of chronic administration (in drinking water of the NO synthase inhibitor, N-nitro-Larginine methyl ester (L-NAME)) on this behavior was examined with a simple test of remembering recently explored objects. Unlike other working memory tasks that require a subject to perform for a reward such as food or water or to avoid shock, our task measured spontaneous exploration of novel and familiar objects and has been described as a 'pure' working memory task. Memory changes were evaluated by measuring the relative time subjects explored familiar versus new stimulus objects.

Pub. in Brain Research Bulletin, p203-207, 1995

### Ordering Information

Order number AD-A298 010/0CFF, \$10. Outside U.S., Canada, Mexico \$20

### CME (Comprehensive Groundwater Monitoring Evaluation) Inspection Training System (on CD-ROM).

Environmental Protection Agency, Washington, DC. Office of Enforcement and Compliance Assurance.

### Oct 94 CD-ROM

The CME Inspection Training System is an easy to use interactive computerbased guide to planning, conducting, and documenting groundwater monitoring system inspections. The course focuses on groundwater monitoring policy and regulations rather than the technical aspects of groundwater monitoring and is designed to help participants plan, conduct, and document groundwater inspections. Narration, graphics, and text are used to present the groundwater monitoring regulations in 40 CFR Parts 264 and 265 and the procedures for planning an inspection, reviewing groundwater monitoring documents, conducting a site visit, and writing a CME inspection report. An online glossary and an indexed Code of Federal Regulations (40 CFR Parts 264 and 265) are included in the course. The course is self-paced. The estimated time to complete all of the modules is eight (8) hours.

### Specifications

Contains search and retrieval software. Requires a 486 PC with Windows 3.1, a CD-ROM drive and a 16-bit color monitor. A sound card is recommended but not required. The datafile is on one disc. Documentation not available separately.

### Ordering Information

Order number PB95-502704CFF, \$97. Outside U.S., Canada, Mexico \$194





### Combined Sewer Overflows: Guidance for Long-Term Control Plan, August 1995.

Environmental Protection Agency, Washington, DC. Office of Wastewater Management.

Sep 95 200p

To help permittees and National Pollutant Discharge Elimination System authorities implement the Combined Sewer Overflow Control Policy, EPA developed long term control policies. This guidance provides assistance in the development of technically feasible, affordable and comprehensive LTCPs consistent with the objectives of the CSO Control Policy.

### Ordering Information

Order number PB96-109475CFF, \$35. Outside U.S., Canada, Mexico \$70



### Combined Sewer Overflows: Guidance for Screening and Ranking, August 1995.

Environmental Protection Agency, Washington, DC. Office of Wastewater Management.

Aug 95 34p

To help permittees and National Pollutant Discharge Elimination System authorities implement the Combined Sewer Overflow Control Policy, EPA developed guidance documents to provide technical support. Intended for NPDES permitting authorities, the guidance presents a process for screening and ranking combined sewer systems with CSOs that have adverse impacts on water quality, aquatic life of human health.

### Ordering Information

Order number PB96-109467CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### Cryptosporidium and Safe Drinking Water.

National Technical Information Service, Springfield, VA.

1995 217p

This package describes various publications about cryptosporidium and drinking water quality. These publications are intended for research laboratories, universities, hospitals, public water suppliers, bottled water companies, state environmental information centers, and community relations activists. The listing includes

the NTIS order number, title, and the price of each publication as well as for the set.

This package contains one published search and seven documents.

#### Ordering Information

Order number PB95-194940CFF, \$125. Outside U.S., Canada, Mexico \$250



### Develop and Test Vulnerability Indices for Classifying Karst Aquifer Pollution Potential.

Pennsylvania State Univ., University Park. Environmental Resources Research Inst.; Sponsored by Geological Survey, Reston, VA. Water Resources Div.

Jul 95 54p

This work examined the transport of pesticides into groundwater networks, specifically aimed at the karst or open conduit geology. For comparison, an intermediate conduit system and a diffuse-flow aquifer were also studied. Farm-applied pesticides in the first two ground watersheds were found. Major springs that drained each 'ground watershed' were sampled and analyzed for pesticides. This work was carried out for an entire growing season and sampling of the springs carried forward to January of the following year.

Also pub. as Pennsylvania State Univ., University Park. Environmental Resources Research Inst. rept. no. ER-9507.

### **Ordering Information**

Order number PB96-115274CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### **DNAPL Site Evaluation**

GeoTrans, Inc., Sterling, VA.

Feb 93 363p

Dense nonaqueous-phase liquids, especially chlorinated solvents, are among the most prevalent subsurface contaminants identified in ground water supplies and at waste disposal sites. This manual addresses several site-characterization issues specific to DNAPL and describes and evaluates activities that can be used to determine the presence, fate and transport of subsurface DNAPL contamination.

### Ordering Information

Order number PB93-150217CFF, \$49. Outside U.S., Canada, Mexico \$98

### Drinking Water Criteria Document for Sulfate. Final Report.

Environmental Protection Agency, Washington, DC. Office of Science and Technology.

Jan 92 48p

This document provides the health effects of exposure to sulfate which are the basis for establishing the Maximum Contaminant Level Goals (MCLG's).

### Ordering Information

Order number PB95-183018CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### Drinking Water Regulations and Health Advisories, November 1994.

Environmental Protection Agency, Washington, DC. Office of Water.

Nov 94 17p

The report provides maximum contaminant level of goals, maximum contaminant levels, reference doses, and drinking water equivalent levels for over 250 organic and inorganic chemicals, radionuclides, and microbes

### Ordering Information

Order number PB95-196762CFF, \$19.50. Outside U.S., Canada, Mexico \$39

### WASTEWATER TREATMENT FACILITIES

Water-discharge permit data on more than 64,000 municipal and industrial wastewater treatment facilities are recorded in the EPA's Permit Compliance System. This PCS system automates entry, updating and retrieval of National Pollutant Discharge Elimination System data and tracks permit issuance, permit limits, monitoring data, and other data pertaining to facilities regulated under NPDES, For a complete list of PCS Data Products, call NTIS Fax Direct, at (703) 487-4140 and enter document #8595.



### **Effects of Drainage and Water Table Control on Groundwater** and Surface Water Quality.

North Carolina State Univ. at Raleigh. 1995 245p

The objectives of the research project were to conduct field experiments to measure and evaluate the effects of drainage, controlled drainage, and sub-irrigation of the following hydrologic and water quality variables: Movement and fate of fertilizer nutrients and sediment in surface runoff, shallow groundwater and subsurface drainage waters; and loss of pesticides in surface and subsurface drainage waters and their movement into shallow groundwaters. The research also tested the reliability of selected models for predicting the movement of pesticides and fertilizer nutrients to shallow groundwater and the losses of these pollutants via surface and subsurface drainage waters; and modified and further developed these existing models to improve their reliability.

### Ordering Information

Order number PB96-120696CFF, \$41. Outside U.S., Canada, Mexico \$82



### **Evaluating Municipal Wastewater User Charge Systems: What You** Need to Know.

Environmental Protection Agency, Washington, DC. Office of Water.

Sep 93 41p

This guide is intended to provide the information needed to comply with EPA's construction grant user charge system regulations.

### Ordering Information

Order number PB96-137252CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Field Evaluation of an Envirex **GAC Fluid-Bed Bioreactor** Treatment of Chlorobenzene in Groundwater.

Dow Chemical Co., Midland, MI. Feb 95 103p

Although granular activated carbon, fluidized-bed bioreactors have been widely used for treatment of groundwater containing readily biodegradable organic compounds, there is only limited experience with treatment of chlorinated organics found at many DOD and industrial sites. This report summarizes

performance data from a field evaluation of an Envirex model 30 bioreactor operated at various chlorobenzene concentrations and organic loading rates over a seven month period.

### Ordering Information

Order number AD-A299 261/8CFF, \$25. Outside U.S., Canada, Mexico \$50

### **HEC-RAS: River Analysis System,** Version 1.1 (for Microcomputers).

Hydrologic Engineering Center, Davis, CA. 1996 2 diskettes

HEC-RAS is an integrated system of software, designed for interactive use in a multi-tasking, multi-user network environment. The system is comprised of a graphical user interface, separate hydraulic analysis components, data storage and management capabilities, graphics, and reporting facilities. The HEC-RAS system is intended for calculating water surface profiles for steady gradually varied flow.

#### Specifications

Memory: 8MB. At least 10 MB available (20 MB recommended) on hard disk; math coprocessor required (80386-80586).



# **World News Connection**

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To reach the WNC Help Desk, call (703) 487-4045. The WNC Help Desk is staffed between 8:30 a.m. - 5:00 p.m., Monday through Friday, Eastern time.

The software is on two 3.5-inch DOS diskettes, 1.44M high density. File format: Visual Basic and FORTRAN 77. Documentation included; may be ordered separately as PB96-100375CFF and PB96-100383CFF.

### **Ordering Information**

Order number PB96-501705CFF, \$97. Outside U.S., Canada, Mexico \$194



### Hydrologic Evaluation of Landfill Performance (HELP) Model, Version 3.04A (for Microcomputers).

Environmental Protection Agency, Washington, DC.

Dec 95 2 diskettes

In Version 3, the HELP model has been greatly enhanced beyond Version 2. The number of layers that can be modeled has been increased. The default soil/material texture list has been expanded to contain additional waste materials, geomembranes, geosynthetic drainage nets, and compacted soils. The model also permits the use of a user-built library of soil textures. Computations of leachate recirculation and groundwater drainage into the landfill have been added. Moreover, HELP Version 3 accounts for leakage through geomembranes due to manufacturing defects (pinholes) and installation defects (punctures, tears and seaming flaws) and by vapor disfusion through the liner based on the equations compiled by Giroud et al. (1989, 1992). The estimation of runoff from the surface of the landfill has been improved to account for large landfill surface slopes and slope lengths. The snowmelt model has been replaced with an energy-based model; the Priestly-Taylor potential evapotranspiration model has been replaced with a Penman method, incorporation wind and humidity effects as well as long wave radiation losses (heat loss at night). A frozen soil model has been added to improve infiltration and runoff predictions in cold regions. The unsaturated vertical drainage model has also been improved to aid in storage computations. Input and editing have been further simplified with interactive, full-screen, menu-driven input techniques.

System requirements: a hard disk drive with 6 MB of available storage, a 80386 or 804886 preferred. The software is on two 3.5-inch DOS diskettes, 1.44M high density. Documentation included; may not be ordered separately.

#### Ordering Information

Order number PB96-501432CFF, \$97. Outside U.S., Canada, Mexico \$194

### In-situ Bioremediation of Ground Water and Geological Material: A Review of **Technologies**

Dynamac Corp., Ada, OK. Sponsored by Robert S. Kerr Environmental Research Lab., Ada. OK.

Jul 93 252p

This report provides the reader with a detailed background of the technologies available for the bioremediation of contaminated soil and ground water. The document has been prepared for scientists, consultants, regulatory personnel, and others who are associated in some way with the restoration of soil and ground water at hazardous waste sites. It provides the most recent scientific understanding of the processes involved with soil and ground water remediation, as well as a definition of the state-of-the-art of these technologies with respect to circumstances of their applicability and their limitations.

### Ordering Information

Order number PB93-215564CFF. \$44. Outside U.S., Canada, Mexico \$88



### Information Collection Rule (ICR) Water Utility Database System, Release 1.0 (for Microcomputers).

Environmental Protection Agency, Cincinnati, OH. Office of Ground Water and Drinking Water.

Apr 96 6 diskettes

The Information Collection Rule, developed by the U.S. Environmental Protection Agency in cooperation with the water industry and environmental groups, requires large public water systems to monitor and report results for microbial contaminants and disinfectant by-products. The software allows users to record and review data required to be reported, varifies that the data are correct, and reports the data in the required format.

#### Specifications

Required hardware: An MS-DOS compatible system with an 80486 or Pentium microprocessor, 40 MB free space on hard drive, 16 MB or more RAM, and a 300 dot (standard laser) or higher resolution printer. A 386 PC with 8MB will work but run

The software is on six 3.5-inch DOS diskettes, 1.44M high density. File format: Microsoft Access. Documentation included; may be ordered separately as PB96-157219CFF. Release 1.0 was established using Microsoft Access runtime application. A copy of the software does not have to be purchased in order to enter and print reports defined by EPA.

### Ordering Information

Order number PB96-501671CFF, \$212. Outside U.S., Canada, Mexico \$424



### Ion Elutriation of Silver and Free Cyanide from Wastewater.

Bureau of Mines, Reno, NV. Reno Research

1995 21p

Ion elutriation was used to extract silver cyanide complexes and free cyanide from aqueous streams containing up to 10 ppm silver and 5 ppm free cyanide. Screening tests selected nine of 350 different surfactants for further, larger scale experiments. The screening procedure used 0.1 of each of the surfactants in 300 mL of synthetic wastewater. Air was sparged into the test cell at 50 cc/ min. The most effective surfactants lowered the silver and free cyanide concentrations to less than 0.5 ppm in 1 h or less. These surfactants were quaternary amine salts with one long chain (C12-C18) organic group and three methyl groups.

### Ordering Information

Order number PB96-135496CFF, \$19.50. Outside U.S., Canada, Mexico \$39



### Lead in Drinking Water in Schools and Non-Residential Buildings

Environmental Protection Agency. Washington, DC. Office of Water.

Apr 94 98p

This manual demonstrates how drinking water in schools and nonresidential buildings can be tested for lead and how contamination problems can be corrected if found. This manual is intended for use by officials responsible for the maintenance and/ or safety of these facilities. The manual is designed to provide step-by-step instructions for sampling water for lead and correcting lead problems when found. In addition, the manual provides background information concerning the sources and health effects of lead, how lead gets into drinking water, how lead in drinking water is regulated, and how to communicate lead issues with users of your facility (e.g., employees, students, concerned parents).

### Ordering Information

Order number PB95-103750CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### Literature Review on **Decontaminating Groundwater** Sampling Devices: Organic Pollutants.

Cold Regions Research and Engineering Lab., Hanover, NH.

Jul 95 21p

Current protocols for decontaminating devices used to sample groundwater for organic contaminants are reviewed. Most of the methods given by regulatory agencies provide little scientific evidence that justify the recommended protocols. In addition, only a few studies that actually compared various decontamination protocols could be found in the open literature, and those studies were limited in their scope.

### **Ordering Information**

Order number AD-A299 046/3CFF, \$19.50. Outside U.S., Canada, Mexico \$39





**National Primary Drinking Water** Regulations for Lead and Copper. Analysis of Occurrences of Very

Low 90th Percentile Lead Levels.

Environmental Protection Agency, Washington, DC. Office of Water.

6 Oct 95 200p

This report contains an analysis of 90th percentile lead levels reported to the Federal Reporting Data System between 1992 and March 20, 1995 to estimate the number of large and medium-size water systems with very low levels of lead (i.e., less than or equal to 5 parts per billion) at the tap.

#### Ordering Information

Order number PB96-129077CFF, \$35. Outside U.S., Canada, Mexico \$70



### **National Water Quality Inventory:** 1994 Report to Congress.

Environmental Protection Agency, Washington, DC. Office of Water.

Dec 95 566p

This document characterizes out water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters. The report summarizes the water quality information submitted by 61 States, American Indian Tribes, Territories, Interstate Water Commissions, and the District of Columbia in their 1994 water quality assessment reports.

### **Ordering Information**

Order number PB96-185699CFF, \$67. Outside U.S., Canada, Mexico \$134



### Rapid Assessment of Soil and **Groundwater Tritium by** Vegetation Sampling.

Westinghouse Savannah River Co., Aiken, SC.; Sponsored by Department of Energy, Washington, DC.

1995 11p

A rapid and relatively inexpensive technique for defining the extent of groundwater contamination by tritium has been investigated. The technique uses existing vegetation to sample the groundwater. Tritium in the water is detected by liquid scintillation counting. The technique was used in an area of known tritium contamination and proved to be useful in defining the extent of tritium contamination.

### Ordering Information

Order number DE95017487CFF. \$19.50. Outside U.S., Canada, Mexico \$39



Regional Assessment of **Produced Water Treatment and Disposal Practices and Research** Needs. Topical Report, July 1991-

December 1994. Remediation Technologies, Inc., Pittsburgh, PA.; Sponsored by Gas Research Inst.,

Chicago, IL. Environment and Safety

Research Dept. Aug 95 125p

The objective of this study is to evaluate current produced water management practices. It focuses on the 13 leading U.S. natural gas producing regions and compares current industry practices, given the regulatory situation, to determine where produced water treatment research could have the most costeffective impact on natural gas production. This report describes an analysis that combines the GRI produced water demographics data base with the GRI-ProWCalc computer cost model to determine where produced water treatment and surface discharge could be cost competitive and/or less expensive than deep well injection.

Color illustrations reproduced in black and white.

### Ordering Information

Order number PB96-146030CFF, \$25. Outside U.S., Canada, Mexico \$50



### Statement of Work for Low **Concentration Inorganic Analytes** in Water, ILC03.1.

Environmental Protection Agency, Washington, DC. Office of Emergency and Remedial Response.

Mar 96 204p

The Statements of Work provide a technical and contractual framework for laboratories to apply EPA analytical methods to the analysis of environmental samples. The SOWs provide not only the analytical methods to be applied, but also the specific technical and contractual requirements by which EPA will evaluate the data. The SOWs are designed as part of the documentation for a contract between EPA and a commercial laboratory performing analyses in support of EPA Superfund programs.

### Ordering Information

Order number PB96-963504CFF, \$41. Outside U.S., Canada, Mexico \$82

Released in the Ongoing Subscription Service, EPA Superfund Series. Contact the Subscription Department for further details. Single copies also available in paper copy or microfiche.



### Status of Pressure Sewer Technology.

Municipal Environmental Research Lab., Cincinnati, OH. Wastewater Research Div. 1995 96p

This document is an overview of pressure sewer technology. It gives information on the history of the technology, U.S. Environmental Protection Agency experiments with these systems, and some different types of pressure sewer systems.

### Ordering Information

Order number PB95-158226CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### Storm Water Management Model (SWMM) (for Microcomputers).

Environmental Protection Agency, Washington, DC. Office of Science and Technology.

1993 1 diskette

The Storm Water Management Model is a computer program which simulates the movement of precipitation and pollutants in ground and surface waters.

### Specifications

The software is on one diskette, double density. Documentation included; may be ordered separately as PB95-254835CFF.

### Ordering Information

Order number PB95-504577CFF, \$97. Outside U.S., Canada, Mexico \$194

### Technical Notes on Drinking Water Methods

Environmental Monitoring Systems Lab., Cincinnati, OH. Chemistry Research Div. Oct 94 72p

The document describes method modifications that were developed after an approved method had been published. Most of the modifications were formerly footnoted in the drinking water regulations, or were described in a proposed rule (58 FR 65622, December 15, 1993). Because this document is incorporated by

reference in drinking water regulations, it is a mandatory part of the analytical procedures required to conduct compliance monitoring and to obtain laboratory certification. Laboratories can use this publication as a guide to analytical methods approved under the Safe Drinking Water Act (SDWA), to obtain information on the latest approved modifications to these methods, and to contact EPA with questions about drinking water methods.

### Ordering Information

Order number PB95-104766CFF, \$21.50. Outside U.S., Canada, Mexico \$43



### Tritiated Wastewater Treatment and Disposal Evaluation for 1995.

Department of Energy, Richland, WA. Richland Operations Office.

Aug 95 68p

A second annual summary and analysis of potential processes for the mitigation of tritium contained in process effluent, ground water, and stored waste is presented.

### Ordering Information

Order number DE95017144CFF, \$21.50. Outside U.S., Canada, Mexico \$43

### Wastewater Treatment Compound Property Processor and Air Emissions Estimator (Water8) (Version 3) (for microcomputers)

Environmental Protection Agency, Research Triangle Park, NC. Office of Air Quality Planning and Standards.

Mar 95 diskette

The Water8 software program consists of analytical expressions for estimating air emissions of individual waste constituents in wastewater collection and treatment. It also includes a data base listing many of the common organic compounds, and procedures for obtaining printouts of emission estimates. In the Water8 program, separate emission estimates are made for each individual compound identified as a constituent of the waste. The emission estimates are based on the properties of the compound and its concentration in the waste. To obtain emission estimates, the user must identify the compounds of interest and provide their

concentrations in the waste. Estimates of total emissions from a waste can be obtained by summing the estimates for the individual compounds.

### Specifications

The software is on one 3.5-inch DOS diskette, 1.44M high density. File format: Mixed.

### Ordering Information

Order number PB95-503173CFF, \$97. Outside U.S., Canada, Mexico \$194

### Water Treatment Plant Model (Version 1.55) (for microcomputers)

Environmental Protection Agency, Washington, DC.

1994 1 diskette

The Water Treatment Plant Model (WTP) was originally developed in support of the Disinfectant/
Disinfection Byproducts Rule. It was prepared with the understanding that the predictions should reflect the central tendency for treatment. The model does not replace sound engineering judgment based on site-specific treatability data to evaluate the best manner in which to address the requirements of the SWTR or potential D/DBP rule.

### Specifications

Operating system: Windows 3.1. Numerical co-processor recommended. File name for documentation is 'readme.asc'. The software is on one 3.5-inch DOS diskette, 1.2M high density.

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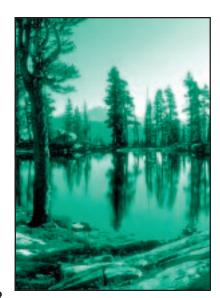




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